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**TECHNICAL MEMORANDUM  
FORMER C-6 FACILITY  
IMPORT SOIL EVALUATION  
USE OF SOIL SOURCES I AND J AS IMPORT TO PARCEL C**

UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

*Rec copy*

**TECHNICAL MEMORANDUM  
FORMER C-6 FACILITY  
IMPORT SOIL EVALUATION  
USE OF SOIL SOURCES I AND J AS IMPORT TO PARCEL C**

by

**Haley & Aldrich, Inc.  
San Diego, California**

for

**Boeing Realty Corporation  
Long Beach, California 90846**

**File No. 27285-001  
March 2001**

**BOEING REALTY CORPORATION  
FORMER C-6 FACILITY  
LOS ANGELES, CALIFORNIA**

**TECHNICAL MEMORANDUM**

**IMPORT SOIL EVALUATION  
USE OF SOIL SOURCES I AND J AS IMPORT TO PARCEL C**

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**To:** Mr. Brian Mossman  
Boeing Realty Corporation  
3760 Kilroy Airport Way, Suite 500  
Long Beach, CA 90806

**From:** Haley & Aldrich, Inc.

**Date:** March 30, 2001

**Re:** Import Soil Evaluation, Use of Soil Sources I and J as Import to Parcel C, Boeing Realty Corporation, Former C-6 Facility – Parcel C, Los Angeles, California

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Haley & Aldrich, Inc. is herein providing this technical memorandum to summarize our recommendations regarding use of two identified potential import soil sources, herein referred to as Sources I and J, as import to Parcel C of the Boeing Realty Corporation's (BRC's) Former C-6 Facility in Los Angeles, California (subject parcel). Based on our review of the information provided for the Sources I and J import soils, it is recommended that these soils be used as fill soil on Parcel C.

**OVERVIEW/PURPOSE**

Two sources of soil, totaling up to approximately 40,000 cubic yards, have been identified as potential import soil for use on Parcel C. Kennedy Jenks Consultants (K/J) collected two soil samples from Source I and three soil samples from Source J and tested these samples in accordance with the protocol presented in the December 11, 2000 Import Soil Screening Program Plan prepared for Parcel C. This plan has been used as guidance to evaluate import soil from "offsite" sources. The criteria presented in the plan were then compared to the analytical results of the soil samples. The purpose of this technical memorandum is to present a summary of the import soil evaluation of the Sources I and J soils and to provide recommendations for use as import for Parcel C.

**LOCATION OF PROPOSED SOURCES I AND J IMPORT SOIL**

The Source I potential import soil comprises approximately 12,000 cubic yards. Source I soil originated from the Caltrans right-of-way at the northbound Interstate 405 on-ramp at Imperial Highway in Los Angeles, California. These soils were excavated as part of freeway construction.

The Source J potential import soil comprises approximately 28,000 cubic yards. Source J soil originated from the Caltrans right-of-way at the northbound Interstate 405 off-ramp at El Segundo Boulevard in Los Angeles, California. These soils were also excavated as part of freeway construction.

## COMPARISON OF ANALYTICAL RESULTS TO IMPORT SOIL GUIDANCE CRITERIA

The laboratory report for the soil samples collected from the subject potential import soils is presented as Attachment 1. Each sample was tested for metals, and various organic chemicals, including total petroleum hydrocarbons, polynuclear aromatic hydrocarbons, and volatile organic hydrocarbons. A review of the laboratory results indicates that the organic chemical results are within both the site-specific import soil evaluation criteria presented in the December 11, 2000 Import Soil Screening Program Plan. A summary of the detected organic compounds and their associated site-specific soil import criteria are presented in Table 1. The remaining organic compounds on the analyte list were not detected, and their detection limits are consistent with the soil import criteria.

**Table 1. Summary of Detected Organic Results and Associated Site-Specific Import Soil Criteria**

Sample Identification	Chemical	Reported Concentration (mg/kg)	Site-Specific Import Soil Criterion (mg/kg)
SOURCE I-1-030901	Total petroleum hydrocarbons (C24-C39)	190	< 10 – 5,000
SOURCE I-1-030901	Total petroleum hydrocarbons (C40+)	120	< 10 – 5,000
SOURCE I-1-030901	Total petroleum hydrocarbons (Total Carbon Chain)	340	< 10 – 5,000
SOURCE I-1-030901	Benzo(a)anthracene	0.350	< 0.016 – 11.4
SOURCE I-1-030901	Benzo(a)pyrene	0.320	< 0.004 – 1.14
SOURCE I-1-030901	Fluoranthene	1.100	< 0.020 – 6,970
SOURCE I-1-030901	Pyrene	0.020	< 0.040 – 2,350
SOURCE J-1-030901	Total petroleum hydrocarbons (C28-C35)	22	< 10 – 5,000
SOURCE J-1-030901	Total petroleum hydrocarbons (Total Carbon Chain)	41	< 10 – 5,000
SOURCE J-2-030901	Total petroleum hydrocarbons (C32-C39)	27	< 10 – 5,000
SOURCE J-2-030901	Total petroleum hydrocarbons (Total Carbon Chain)	56	< 10 – 5,000
SOURCE J-3-030901	Total petroleum hydrocarbons (C28-C35)	30	< 10 – 5,000

Several of the metals results are greater than the site-specific criteria, but are within the reported southern California background literature value criteria. A summary of these metals results is presented in Table 2. The remaining metals on the analyte list are consistent with the import soil criteria.

**Table 2. Summary of Metals Results Greater Than Site-Specific Import Soil Criteria and Associated Site-Specific and Southern California Import Soil Criteria**

Sample Identification	Chemical	Reported Concentration (mg/kg)	Site-Specific Import Soil Criterion (mg/kg)	Maximum Regional (Southern California) Background Criterion (mg/kg)
Source-I-1-030901	Lead	13	8	189.4
	Copper	22.7	20	54
Source-J-1-030901	Lead	10.7	8	189.4
	Vanadium	42.9	38	84.8
	Copper	31.3	20	54
Source-J-2-030901	Lead	19.2	8	189.4
	Nickel	18.2	18	28.2
	Beryllium	0.51	0.5	1.2
	Vanadium	45.5	38	84.8
	Zinc	67.1	64	247
	Copper	28.8	20	54
Source-J-3-030901	Lead	17.2	8	189.4
	Nickel	19.2	18	28.2
	Beryllium	0.55	0.5	1.2
	Vanadium	48.3	38	84.8
	Zinc	64.9	64	247
	Copper	33.2	20	54

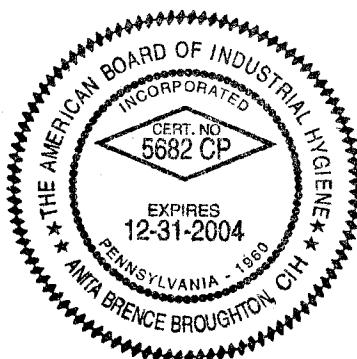
#### **RECOMMENDATIONS FOR USE AS IMPORT SOIL**

It is recommended that the subject approximately 40,000 cubic yards of soil comprising Sources I and J be used as fill soil on Parcel C. The reported soil concentrations for organic compounds are consistent with the site-specific criteria, and those for inorganic chemicals are consistent with the site-specific and/or southern California background criteria. These background values are considered to be representative of the general geographic region from which the Sources I and J import soils originated, and are not considered to be a result of chemical contamination.

Sincerely yours,  
HALEY & ALDRICH, INC.



Anita Broughton, CIH  
Risk Assessment Task Manager



Scott Zachary  
Project Manager

Attachments:  
Appendix A Laboratory Report

Appendix A

SEVERN  
TRENT  
SERVICES

March 15, 2001

STL LOT NUMBER: E1C090309  
PO/CONTRACT: 05160-SEV002

Jay Knight  
Kennedy/Jenks Consultants  
2151 Michelson Drive  
Suite 100  
Irvine, CA 92612

STL Los Angeles  
1721 South Grand Avenue  
Santa Ana, CA 92705-4808

Tel: 714 258 8610  
Fax: 714 258 0921  
[www.stl-inc.com](http://www.stl-inc.com)

Dear Mr. Knight,

This report contains the analytical results for the six samples received under chain of custody by STL Los Angeles on March 9, 2001. These samples are associated with your BRC former C-6 Torrance Harbor Gateway project.

Note that the 8310 analysis was performed at Del Mar Analytical. See attached report for any related anomalies. All applicable quality control procedures meet method-specified acceptance criteria. See Project Receipt Checklist for container temperature and conditions. Temperature reading beyond 2 to 6 degrees Celsius is considered not within acceptable criteria unless otherwise noted such as limited transit time from field and test requested. Any matrix related anomaly is footnoted within the report.

STL Los Angeles certifies that the test performed at our facility in this report meet all the requirements of NELAC certification number 01118CA. This report shall not be reproduced except in full, without the written approval of the laboratory.

If you have any questions, please feel free to call me at 714-258-8610.

Sincerely,



Diane Suzuki  
Project Manager

cc: Project File

This report contains 000083 pages.



Committed To Your Success

# SEVERN TRENT LABORATORIES

No. 203086

## CHAIN OF CUSTODY RECORD

CUSTOMER INFORMATION		PROJECT INFORMATION									
COMPANY: <i>Kennedy / Stokes</i>	SEND REPORT TO: <i>Jay Knight</i>	PROJECT NAME/NUMBER: <i>0010 34.00</i>									
		BILLING INFORMATION									
ADDRESS: <i>2151 Michelson Dr. Suite 100</i>	BILL TO: <i>Boeing Reality</i>										
Tustin CA. 92612		ADDRESS:									
		LAB JOB NO. <input type="text"/>									
PHONE: <i>949-261-1577</i>	PHONE: <input type="text"/>										
FAX: <i>949-261-2134</i>	FAX: <input type="text"/>	PO NO.: <input type="text"/>									
NUMBER OF CONTAINERS											
SAMPLE NO.	SAMPLE DESCRIPTION	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER	PRESERV.	REMARKS/PRECAUTIONS				
Source - A-1-030901	<i>3/9/01</i>	1000	50.1	<i>2x6</i>	<i>15mL</i>	<i>—</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Source - A-2-030901	"	1010	"	"	"	"	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Source - A-3-030901	"	1015	"	"	"	"	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Source - I-1-030901	"	1115	"	"	"	"	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Source - I-2-030901	"	1120	"	"	"	"	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Bull-2-AK-A-030901-1	<i>E 13 Ses</i>	<i>0309</i>	<i>0309</i>	<i>5 mL</i>	<i>turnare</i>	<i>5 mL</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Rekt "per Jay Knight"</i>											
SAMPLER: <i>Shane Scrimshire</i>		SHIPMENT METHOD:									
		AIRBILL NO.: <input type="text"/>									
REQUIRED TURNAROUND*		<input type="checkbox"/> SAME DAY	<input type="checkbox"/> 24 HOURS	<input type="checkbox"/> 48 HOURS	<input type="checkbox"/> 72 HOURS	<input type="checkbox"/> 5 DAYS	<input type="checkbox"/> 10 DAYS	<input type="checkbox"/> ROUTINE	<input type="checkbox"/> OTHER		
RElinquished BY:		DATE: <i>3-9-01</i>	2. RElinquished BY:		1. RElinquished BY:		DATE: <i>3-9-01</i>		DATE: <i>3-9-01</i>	RElinquished BY:	
SIGNATURE: <i>Shane Scrimshire</i>		SIGNATURE: <i>Shane Scrimshire</i>	SIGNATURE: <i>Shane Scrimshire</i>		SIGNATURE: <i>Shane Scrimshire</i>		SIGNATURE: <i>Shane Scrimshire</i>		SIGNATURE: <i>Shane Scrimshire</i>	SIGNATURE: <i>Shane Scrimshire</i>	
PRINTED NAME/COMPANY: <i>Shane Scrimshire K/J</i>		TIME: <i>1535</i>	PRINTED NAME/COMPANY: <i>Shane Scrimshire K/J</i>		PRINTED NAME/COMPANY: <i>Shane Scrimshire K/J</i>		PRINTED NAME/COMPANY: <i>Shane Scrimshire K/J</i>		TIME: <i>1535</i>	PRINTED NAME/COMPANY: <i>Shane Scrimshire K/J</i>	
RECEIVED BY:		DATE: <i>3/9/01</i>	2. RECEIVED BY:		1. RECEIVED BY:		DATE: <i>3/9/01</i>		DATE: <i>3/9/01</i>	RECEIVED BY:	
SIGNATURE: <i>Shane Scrimshire</i>		SIGNATURE: <i>Shane Scrimshire</i>	SIGNATURE: <i>Shane Scrimshire</i>		SIGNATURE: <i>Shane Scrimshire</i>		SIGNATURE: <i>Shane Scrimshire</i>		SIGNATURE: <i>Shane Scrimshire</i>	SIGNATURE: <i>Shane Scrimshire</i>	
PRINTED NAME/COMPANY: <i>Shane Scrimshire</i>		TIME: <i>1535</i>	PRINTED NAME/COMPANY: <i>Shane Scrimshire</i>		PRINTED NAME/COMPANY: <i>Shane Scrimshire</i>		PRINTED NAME/COMPANY: <i>Shane Scrimshire</i>		TIME: <i>1535</i>	PRINTED NAME/COMPANY: <i>Shane Scrimshire</i>	
* RUSH TURNAROUND MAY REQUIRE SURCHARGE											
000002											

RUSH TURNAROUND MAY REQUIRE SURCHARGE

BOE-C6-0232184

## SEVERN TRENT LABORATORIES

1721 South Grand Avenue  
Santa Ana, CA 92705

Phone: (714) 258-8610 / Fax: (714) 258-0921



# EXECUTIVE SUMMARY - Detection Highlights

**E1C090309**

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
<b>Source-J-1-030901 03/09/01 10:00 001</b>				
C28-C31	11	10	mg/kg	SW846 8015B
C32-C35	11	10	mg/kg	SW846 8015B
Total Carbon Chain Range	41	10	mg/kg	SW846 8015B
Mercury	0.064 B	0.10	mg/kg	SW846 7471A
Aluminum	13300	20.0	mg/kg	SW846 6010B
Arsenic	5.7	1.0	mg/kg	SW846 6010B
Barium	99.4	2.0	mg/kg	SW846 6010B
Beryllium	0.48 B	0.50	mg/kg	SW846 6010B
Cobalt	8.0	5.0	mg/kg	SW846 6010B
Chromium	26.3	1.0	mg/kg	SW846 6010B
Copper	31.3	2.5	mg/kg	SW846 6010B
Molybdenum	0.97 B	4.0	mg/kg	SW846 6010B
Nickel	17.9	4.0	mg/kg	SW846 6010B
Lead	10.7	0.50	mg/kg	SW846 6010B
Thallium	1.3	1.0	mg/kg	SW846 6010B
Vanadium	42.9	5.0	mg/kg	SW846 6010B
Zinc	60.5	2.0	mg/kg	SW846 6010B
<b>Source-J-2-030901 03/09/01 10:10 002</b>				
C24-C27	6.0 J	10	mg/kg	SW846 8015B
C28-C31	9.5 J	10	mg/kg	SW846 8015B
C32-C35	12	10	mg/kg	SW846 8015B
C36-C39	15	10	mg/kg	SW846 8015B
C40+	7.9 J	10	mg/kg	SW846 8015B
Total Carbon Chain Range	56	10	mg/kg	SW846 8015B
Mercury	0.045 B	0.10	mg/kg	SW846 7471A
Aluminum	14000	20.0	mg/kg	SW846 6010B
Arsenic	5.5	1.0	mg/kg	SW846 6010B
Barium	104	2.0	mg/kg	SW846 6010B
Beryllium	0.51	0.50	mg/kg	SW846 6010B
Cobalt	7.4	5.0	mg/kg	SW846 6010B
Chromium	26.7	1.0	mg/kg	SW846 6010B
Copper	28.8	2.5	mg/kg	SW846 6010B
Molybdenum	1.1 B	4.0	mg/kg	SW846 6010B
Nickel	18.2	4.0	mg/kg	SW846 6010B
Lead	19.2	0.50	mg/kg	SW846 6010B
Antimony	0.58 B	6.0	mg/kg	SW846 6010B
Thallium	0.85 B	1.0	mg/kg	SW846 6010B
Vanadium	45.5	5.0	mg/kg	SW846 6010B
Zinc	67.1	2.0	mg/kg	SW846 6010B

(Continued on next page)

**000004**

# EXECUTIVE SUMMARY - Detection Highlights

E1C090309

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
<b>Source-J-3-030901 03/09/01 10:15 003</b>				
C28-C31	7.7 J	10	mg/kg	SW846 8015B
C32-C35	8.3 J	10	mg/kg	SW846 8015B
C36-C39	5.3 J	10	mg/kg	SW846 8015B
Total Carbon Chain Range	30	10	mg/kg	SW846 8015B
Mercury	0.031 B	0.10	mg/kg	SW846 7471A
Aluminum	15100	20.0	mg/kg	SW846 6010B
Arsenic	6.6	1.0	mg/kg	SW846 6010B
Barium	106	2.0	mg/kg	SW846 6010B
Beryllium	0.55	0.50	mg/kg	SW846 6010B
Cobalt	8.2	5.0	mg/kg	SW846 6010B
Chromium	27.4	1.0	mg/kg	SW846 6010B
Copper	33.2	2.5	mg/kg	SW846 6010B
Molybdenum	1.2 B	4.0	mg/kg	SW846 6010B
Nickel	19.2	4.0	mg/kg	SW846 6010B
Lead	17.2	0.50	mg/kg	SW846 6010B
Antimony	0.26 B	6.0	mg/kg	SW846 6010B
Thallium	0.98 B	1.0	mg/kg	SW846 6010B
Vanadium	48.3	5.0	mg/kg	SW846 6010B
Zinc	64.9	2.0	mg/kg	SW846 6010B

**Source-I-1-030901 03/09/01 11:15 004**

C20-C23	9.8 J	10	mg/kg	SW846 8015B
C24-C27	22	10	mg/kg	SW846 8015B
C28-C31	41	10	mg/kg	SW846 8015B
C32-C35	62	10	mg/kg	SW846 8015B
C36-C39	65	10	mg/kg	SW846 8015B
C40+	120	10	mg/kg	SW846 8015B
Total Carbon Chain Range	340	10	mg/kg	SW846 8015B
Mercury	0.062 B	0.10	mg/kg	SW846 7471A
Aluminum	9310	20.0	mg/kg	SW846 6010B
Arsenic	4.4	1.0	mg/kg	SW846 6010B
Barium	80.9	2.0	mg/kg	SW846 6010B
Beryllium	0.33 B	0.50	mg/kg	SW846 6010B
Cobalt	5.0	5.0	mg/kg	SW846 6010B
Chromium	16.4	1.0	mg/kg	SW846 6010B
Copper	22.7	2.5	mg/kg	SW846 6010B
Molybdenum	0.62 B	4.0	mg/kg	SW846 6010B
Nickel	10.4	4.0	mg/kg	SW846 6010B
Lead	13.0	0.50	mg/kg	SW846 6010B
Vanadium	27.8	5.0	mg/kg	SW846 6010B
Zinc	55.1	2.0	mg/kg	SW846 6010B

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**000005**

# EXECUTIVE SUMMARY - Detection Highlights

E1C090309

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
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Source-I-2-030901 03/09/01 11:20 005

Mercury	0.026 B	0.10	mg/kg	SW846 7471A
Vanadium	24.3	5.0	mg/kg	SW846 6010B
Zinc	26.7	2.0	mg/kg	SW846 6010B
Aluminum	7460	20.0	mg/kg	SW846 6010B
Arsenic	1.4	1.0	mg/kg	SW846 6010B
Barium	57.8	2.0	mg/kg	SW846 6010B
Beryllium	0.25 B	0.50	mg/kg	SW846 6010B
Cobalt	3.6 B	5.0	mg/kg	SW846 6010B
Chromium	7.6	1.0	mg/kg	SW846 6010B
Copper	7.5	2.5	mg/kg	SW846 6010B
Nickel	5.1	4.0	mg/kg	SW846 6010B
Lead	1.9	0.50	mg/kg	SW846 6010B
Thallium	0.52 B	1.0	mg/kg	SW846 6010B

Build -2-AE-13-030901-1 03/09/01 08:00 006

Aluminum	24800	20.0	mg/kg	SW846 6010B
Arsenic	5.2	1.0	mg/kg	SW846 6010B
Barium	168	2.0	mg/kg	SW846 6010B
Beryllium	0.82	0.50	mg/kg	SW846 6010B
Cobalt	12.5	5.0	mg/kg	SW846 6010B
Chromium	29.1	1.0	mg/kg	SW846 6010B
Copper	39.9	2.5	mg/kg	SW846 6010B
Molybdenum	0.49 B	4.0	mg/kg	SW846 6010B
Nickel	20.6	4.0	mg/kg	SW846 6010B
Lead	6.3	0.50	mg/kg	SW846 6010B
Thallium	0.91 B	1.0	mg/kg	SW846 6010B
Vanadium	58.1	5.0	mg/kg	SW846 6010B
Zinc	71.2	2.0	mg/kg	SW846 6010B

**000006**

BOE-C6-0232188

## METHODS SUMMARY

E1C090309

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Extractable Petroleum Hydrocarbons	SW846 8015B	SANA AUTO-SHAKE
Inductively Coupled Plasma (ICP) Metals	SW846 6010B	SW846 3050B
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A	SW846 7471A
Volatile Organics by GC/MS	SW846 8260B	SW846 5030
Volatile Petroleum Hydrocarbons	SW846 8015B	SW846 5030

### References:

- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

000007

BOE-C6-0232189

# SAMPLE SUMMARY

E1C090309

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
DW7TV	001	Source-J-1-030901	03/09/01	10:00
DW7T4	002	Source-J-2-030901	03/09/01	10:10
DW7T7	003	Source-J-3-030901	03/09/01	10:15
DW7VC	004	Source-I-1-030901	03/09/01	11:15
DW7VD	005	Source-I-2-030901	03/09/01	11:20
DW7VF	006	Build -2-AE-13-030901-1	03/09/01	08:00

**NOTE (S) :**

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

000008

BOE-C6-0232190

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-1-030901

## GC Semivolatiles

Lot-Sample #....: E1C090309-001 Work Order #....: DW7TV1AC Matrix.....: SOLID  
 Date Sampled....: 03/09/01 10:00 Date Received...: 03/09/01 15:35 MS Run #.....: 1071274  
 Prep Date.....: 03/12/01 Analysis Date...: 03/14/01  
 Prep Batch #....: 1071498 Analysis Time...: 14:20  
 Dilution Factor: 1  
 Analyst ID.....: 356074 Instrument ID...: G03  
 Method.....: SW846 8015B

PARAMETER	REPORTING			
	RESULT	LIMIT	UNITS	MDL
C8-C9	ND	10	mg/kg	5.0
C10-C11	ND	10	mg/kg	5.0
C12-C13	ND	10	mg/kg	5.0
C14-C15	ND	10	mg/kg	5.0
C16-C17	ND	10	mg/kg	5.0
C18-C19	ND	10	mg/kg	5.0
C20-C23	ND	10	mg/kg	5.0
C24-C27	ND	10	mg/kg	5.0
C28-C31	11	10	mg/kg	5.0
C32-C35	11	10	mg/kg	5.0
C36-C39	ND	10	mg/kg	5.0
C40+	ND	10	mg/kg	5.0
Total Carbon Chain Range	41	10	mg/kg	5.0
SURROGATE	PERCENT		RECOVERY	
	RECOVERY		LIMITS	
Benzo (a) pyrene	82		(60 - 130)	

000009

KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-1-030901

GC Volatiles

Lot-Sample #....: E1C090309-001 Work Order #....: DW7TV1AD Matrix.....: SOLID  
Date Sampled....: 03/09/01 10:00 Date Received...: 03/09/01 15:35 MS Run #.....: 1072196  
Prep Date.....: 03/12/01 Analysis Date...: 03/12/01  
Prep Batch #....: 1072404 Analysis Time...: 13:21  
Dilution Factor: 1  
Analyst ID.....: 001464 Instrument ID...: G16  
Method.....: SW846 8015B

PARAMETER	REPORTING			
	RESULT	LIMIT	UNITS	MDL
C6-C8	ND	1.0	mg/kg	0.10
SURROGATE	PERCENT RECOVERY			
	RECOVERY	LIMITS	(60 - 130)	
a,a,a-Trifluorotoluene (TFT)	83			

000010

BOE-C6-0232192

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-1-030901

## GC/MS Volatiles

Lot-Sample #....: E1C090309-001    Work Order #....: DW7TV1AA    Matrix.....: SOLID  
 Date Sampled....: 03/09/01 10:00    Date Received...: 03/09/01 15:35    MS Run #.....: 1072160  
 Prep Date.....: 03/12/01    Analysis Date...: 03/12/01  
 Prep Batch #....: 1072350    Analysis Time...: 16:10  
 Dilution Factor: 1  
 Analyst ID.....: 999998    Instrument ID...: MSG  
 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND	10	ug/kg	2.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND	10	ug/kg	5.0
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	2.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND	50	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND	20	ug/kg	10
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0

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BOE-C6-0232193

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-1-030901

## GC/MS Volatiles

Lot-Sample #....: E1C090309-001 Work Order #....: DW7TV1AA Matrix.....: SOLID

PARAMETER	RESULT	REPORTING		MDL
		LIMIT	UNITS	
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	5.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
SURROGATE		PERCENT RECOVERY	RECOVERY LIMITS	
Bromofluorobenzene	104	(70 - 130)		
1,2-Dichloroethane-d4	100	(60 - 140)		
Toluene-d8	106	(70 - 130)		

000012

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-2-030901

## GC Semivolatiles

Lot-Sample #....: E1C090309-002 Work Order #....: DW7T41AE Matrix.....: SOLID  
 Date Sampled....: 03/09/01 10:10 Date Received...: 03/09/01 15:35 MS Run #.....: 1071274  
 Prep Date.....: 03/12/01 Analysis Date...: 03/14/01  
 Prep Batch #....: 1071498 Analysis Time...: 14:59  
 Dilution Factor: 1  
 Analyst ID.....: 356074 Instrument ID...: G03  
 Method.....: SW846 8015B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
C8-C9	ND	10	mg/kg	5.0
C10-C11	ND	10	mg/kg	5.0
C12-C13	ND	10	mg/kg	5.0
C14-C15	ND	10	mg/kg	5.0
C16-C17	ND	10	mg/kg	5.0
C18-C19	ND	10	mg/kg	5.0
C20-C23	ND	10	mg/kg	5.0
C24-C27	6.0 J	10	mg/kg	5.0
C28-C31	9.5 J	10	mg/kg	5.0
C32-C35	12	10	mg/kg	5.0
C36-C39	15	10	mg/kg	5.0
C40+	7.9 J	10	mg/kg	5.0
Total Carbon Chain Range	56	10	mg/kg	5.0
<hr/>		PERCENT	RECOVERY	
<hr/>		RECOVERY	LIMITS	
SURROGATE	83		(60 - 130)	
Benzo (a) pyrene				

## NOTE(S) :

J Estimated result. Result is less than RL.

000013

BOE-C6-0232195

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-2-030901

## GC Volatiles

Lot-Sample #....: E1C090309-002    Work Order #....: DW7T41AF    Matrix.....: SOLID  
 Date Sampled....: 03/09/01 10:10    Date Received...: 03/09/01 15:35    MS Run #.....: 1072196  
 Prep Date.....: 03/12/01    Analysis Date...: 03/12/01  
 Prep Batch #....: 1072404    Analysis Time...: 13:50  
 Dilution Factor: 1  
 Analyst ID.....: 001464    Instrument ID...: G16  
 Method.....: SW846 8015B

<u>PARAMETER</u>	REPORTING			
	<u>RESULT</u>	<u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
C6-C8	ND	1.0	mg/kg	0.10
<u>SURROGATE</u>				
a,a,a-Trifluorotoluene (TFT)	PERCENT	RECOVERY		
	RECOVERY	LIMITS		
	83	(60 - 130)		

000014

BOE-C6-0232196

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-2-030901

## GC/MS Volatiles

Lot-Sample #....: E1C090309-002    Work Order #....: DW7T41AD    Matrix.....: SOLID  
 Date Sampled....: 03/09/01 10:10    Date Received...: 03/09/01 15:35    MS Run #....: 1072160  
 Prep Date.....: 03/12/01    Analysis Date...: 03/12/01  
 Prep Batch #....: 1072350    Analysis Time...: 16:43  
 Dilution Factor: 1  
 Analyst ID.....: 999998    Instrument ID...: MSG  
 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND	10	ug/kg	2.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND	10	ug/kg	5.0
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	2.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND	50	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND	20	ug/kg	10
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0

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BOE-C6-0232197

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-2-030901

## GC/MS Volatiles

Lot-Sample #....: E1C090309-002 Work Order #....: DW7T41AD Matrix.....: SOLID

PARAMETER	RESULT	REPORTING		MDL
		LIMIT	UNITS	
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	5.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
<u>SURROGATE</u>		PERCENT	RECOVERY	
		RECOVERY	LIMITS	
Bromofluorobenzene	99	(70 - 130)		
1,2-Dichloroethane-d4	102	(60 - 140)		
Toluene-d8	106	(70 - 130)		

000016

BOE-C6-0232198

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-3-030901

## GC Semivolatiles

Lot-Sample #....: E1C090309-003 Work Order #....: DW7T71AE Matrix.....: SOLID  
 Date Sampled....: 03/09/01 10:15 Date Received...: 03/09/01 15:35 MS Run #.....: 1071274  
 Prep Date.....: 03/12/01 Analysis Date...: 03/14/01  
 Prep Batch #....: 1071498 Analysis Time...: 15:38  
 Dilution Factor: 1  
 Analyst ID.....: 356074 Instrument ID...: G03  
 Method.....: SW846 8015B

PARAMETER	REPORTING			
	RESULT	LIMIT	UNITS	MDL
C8-C9	ND	10	mg/kg	5.0
C10-C11	ND	10	mg/kg	5.0
C12-C13	ND	10	mg/kg	5.0
C14-C15	ND	10	mg/kg	5.0
C16-C17	ND	10	mg/kg	5.0
C18-C19	ND	10	mg/kg	5.0
C20-C23	ND	10	mg/kg	5.0
C24-C27	ND	10	mg/kg	5.0
C28-C31	7.7 J	10	mg/kg	5.0
C32-C35	8.3 J	10	mg/kg	5.0
C36-C39	5.3 J	10	mg/kg	5.0
C40+	ND	10	mg/kg	5.0
Total Carbon Chain Range	30	10	mg/kg	5.0
SURROGATE	PERCENT RECOVERY		RECOVERY LIMITS	
	RECOVERY		(60 - 130)	
Benzo(a)pyrene	83			

NOTE(S):

J Estimated result. Result is less than RL.

000017

KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-3-030901

GC Volatiles

Lot-Sample #....: E1C090309-003 Work Order #....: DW7T71AF Matrix.....: SOLID  
Date Sampled....: 03/09/01 10:15 Date Received...: 03/09/01 15:35 MS Run #.....: 1072196  
Prep Date.....: 03/12/01 Analysis Date...: 03/12/01  
Prep Batch #....: 1072404 Analysis Time...: 14:18  
Dilution Factor: 1  
Analyst ID.....: 001464 Instrument ID...: G16  
Method.....: SW846 8015B

PARAMETER	REPORTING			
	RESULT	LIMIT	UNITS	MDL
C6-C8	ND	1.0	mg/kg	0.10
SURROGATE	PERCENT			
	RECOVERY	RECOVERY		
a,a,a-Trifluorotoluene (TFT)	84	(60 - 130)		

000018

BOE-C6-0232200

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-3-030901

## GC/MS Volatiles

Lot-Sample #....: E1C090309-003 Work Order #....: DW7T71AD Matrix.....: SOLID  
 Date Sampled....: 03/09/01 10:15 Date Received...: 03/09/01 15:35 MS Run #.....: 1072160  
 Prep Date.....: 03/12/01 Analysis Date...: 03/12/01  
 Prep Batch #....: 1072350 Analysis Time...: 17:16  
 Dilution Factor: 1  
 Analyst ID.....: 999998 Instrument ID...: MSG  
 Method.....: SW846 8260B

PARAMETER	REPORTING			
	RESULT	LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND	10	ug/kg	2.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND	10	ug/kg	5.0
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	2.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND	50	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND	20	ug/kg	10
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0

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## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-3-030901

## GC/MS Volatiles

Lot-Sample #....: E1C090309-003 Work Order #....: DW7T71AD Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	5.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro- propane	ND	10	ug/kg	3.0
1,2,4-Trichloro- benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>		
Bromofluorobenzene	105	(70 - 130)		
1,2-Dichloroethane-d4	105	(60 - 140)		
Toluene-d8	108	(70 - 130)		

000020

BOE-C6-0232202

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-I-1-030901

## GC Semivolatiles

Lot-Sample #....: E1C090309-004    Work Order #....: DW7VC1AE    Matrix.....: SOLID  
 Date Sampled....: 03/09/01 11:15    Date Received...: 03/09/01 15:35    MS Run #.....: 1071274  
 Prep Date.....: 03/12/01                  Analysis Date...: 03/14/01  
 Prep Batch #....: 1071498                 Analysis Time...: 16:17  
 Dilution Factor: 1  
 Analyst ID.....: 356074                 Instrument ID...: G03  
 Method.....: SW846 8015B

PARAMETER	REPORTING			
	RESULT	LIMIT	UNITS	MDL
C8-C9	ND	10	mg/kg	5.0
C10-C11	ND	10	mg/kg	5.0
C12-C13	ND	10	mg/kg	5.0
C14-C15	ND	10	mg/kg	5.0
C16-C17	ND	10	mg/kg	5.0
C18-C19	ND	10	mg/kg	5.0
C20-C23	9.8 J	10	mg/kg	5.0
C24-C27	22	10	mg/kg	5.0
C28-C31	41	10	mg/kg	5.0
C32-C35	62	10	mg/kg	5.0
C36-C39	65	10	mg/kg	5.0
C40+	120	10	mg/kg	5.0
Total Carbon Chain Range	340	10	mg/kg	5.0
SURROGATE	PERCENT RECOVERY		RECOVERY LIMITS	
	80		(60 - 130)	

NOTE (S) :

J Estimated result. Result is less than RL.

000021

KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-I-1-030901

GC Volatiles

Lot-Sample #....: E1C090309-004 Work Order #....: DW7VC1AF Matrix.....: SOLID  
Date Sampled....: 03/09/01 11:15 Date Received...: 03/09/01 15:35 MS Run #.....: 1072196  
Prep Date.....: 03/12/01 Analysis Date...: 03/12/01  
Prep Batch #....: 1072404 Analysis Time...: 14:47  
Dilution Factor: 1  
Analyst ID.....: 001464 Instrument ID...: G16  
Method.....: SW846 8015B

PARAMETER	REPORTING			
	RESULT	LIMIT	UNITS	MDL
C6-C8	ND	1.0	mg/kg	0.10
SURROGATE		RECOVERY		
a,a,a-Trifluorotoluene (TFT)	82	RECOVERY LIMITS (60 - 130)		

000022

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-I-1-030901

## GC/MS Volatiles

Lot-Sample #....: E1C090309-004    Work Order #....: DW7VC1AD    Matrix.....: SOLID  
 Date Sampled....: 03/09/01 11:15    Date Received...: 03/09/01 15:35    MS Run #....: 1072160  
 Prep Date.....: 03/12/01    Analysis Date...: 03/12/01  
 Prep Batch #....: 1072350    Analysis Time...: 17:49  
 Dilution Factor: 1  
 Analyst ID.....: 999998    Instrument ID...: MSG  
 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND	10	ug/kg	2.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND	10	ug/kg	5.0
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	2.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND	5.0	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND	20	ug/kg	10
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0

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000023

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-I-1-030901

## GC/MS Volatiles

Lot-Sample #....: E1C090309-004 Work Order #....: DW7VC1AD Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	5.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro- propane	ND	10	ug/kg	3.0
1,2,4-Trichloro- benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
<u>SURROGATE</u>		<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	
Bromofluorobenzene	110	(70 - 130)		
1,2-Dichloroethane-d4	110	(60 - 140)		
Toluene-d8	115	(70 - 130)		

000024

**KENNEDY/JENKS CONSULTANTS**

**Client Sample ID: Source-I-2-030901**

**GC Semivolatiles**

**Lot-Sample #....: E1C090309-005    Work Order #....: DW7VD1AE    Matrix.....: SOLID**  
**Date Sampled....: 03/09/01 11:20    Date Received...: 03/09/01 15:35 MS Run #....: 1071274**  
**Prep Date.....: 03/12/01    Analysis Date...: 03/14/01**  
**Prep Batch #....: 1071498    Analysis Time...: 17:35**  
**Dilution Factor: 1**  
**Analyst ID.....: 356074    Instrument ID...: G03**  
**Method.....: SW846 8015B**

<b>PARAMETER</b>	<b>REPORTING</b>			
	<b>RESULT</b>	<b>LIMIT</b>	<b>UNITS</b>	<b>MDL</b>
C8-C9	ND	10	mg/kg	5.0
C10-C11	ND	10	mg/kg	5.0
C12-C13	ND	10	mg/kg	5.0
C14-C15	ND	10	mg/kg	5.0
C16-C17	ND	10	mg/kg	5.0
C18-C19	ND	10	mg/kg	5.0
C20-C23	ND	10	mg/kg	5.0
C24-C27	ND	10	mg/kg	5.0
C28-C31	ND	10	mg/kg	5.0
C32-C35	ND	10	mg/kg	5.0
C36-C39	ND	10	mg/kg	5.0
C40+	ND	10	mg/kg	5.0
Total Carbon Chain Range	ND	10	mg/kg	5.0
<b>SURROGATE</b>	<b>PERCENT</b>	<b>RECOVERY</b>		
	<b>RECOVERY</b>	<b>LIMITS</b>		
Benzo (a) pyrene	96	(60 - 130)		

**000025**

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-I-2-030901

## GC Volatiles

Lot-Sample #....: E1C090309-005 Work Order #....: DW7VD1AF Matrix.....: SOLID  
Date Sampled....: 03/09/01 11:20 Date Received...: 03/09/01 15:35 MS Run #.....: 1072196  
Prep Date.....: 03/12/01 Analysis Date...: 03/12/01  
Prep Batch #....: 1072404 Analysis Time...: 15:15  
Dilution Factor: 1  
Analyst ID.....: 001464 Instrument ID...: G16  
Method.....: SW846 8015B

PARAMETER	REPORTING			
	RESULT	LIMIT	UNITS	MDL
C6-C8	ND	1.0	mg/kg	0.10
SURROGATE		RECOVERY		
a,a,a-Trifluorotoluene (TFT)		RECOVERY	LIMITS	
		85	(60 - 130)	

000026

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-I-2-030901

## GC/MS Volatiles

Lot-Sample #....: E1C090309-005    Work Order #....: DW7VD1AD    Matrix.....: SOLID  
 Date Sampled....: 03/09/01 11:20    Date Received...: 03/09/01 15:35    MS Run #.....: 1072160  
 Prep Date.....: 03/12/01    Analysis Date...: 03/12/01  
 Prep Batch #....: 1072350    Analysis Time...: 18:22  
 Dilution Factor: 1  
 Analyst ID.....: 999998    Instrument ID...: MSG  
 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND	10	ug/kg	2.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND	10	ug/kg	5.0
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	2.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND	50	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND	20	ug/kg	10
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0

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000027

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-I-2-030901

## GC/MS Volatiles

Lot-Sample #....: E1C090309-005 Work Order #....: DW7VD1AD Matrix.....: SOLID

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	5.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0

SURROGATE	PERCENT RECOVERY	RECOVERY	
		LIMITS	
Bromofluorobenzene	97	(70	- 130)
1,2-Dichloroethane-d4	93	(60	- 140)
Toluene-d8	109	(70	- 130)

000028

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-1-030901

## TOTAL Metals

Lot-Sample #....: E1C090309-001  
 Date Sampled...: 03/09/01 10:00 Date Received...: 03/09/01 15:35 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
<b>Prep Batch #....: 1069112</b>						
Silver	ND	1.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7TV1AT
		Dilution Factor: 1		Analysis Time...: 17:56	Analyst ID.....:	003119
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.10
Aluminum	13300	20.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7TV1AE
		Dilution Factor: 1		Analysis Time...: 17:56	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	8.0
Arsenic	5.7	1.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7TV1AG
		Dilution Factor: 1		Analysis Time...: 17:56	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.40
Barium	99.4	2.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7TV1AH
		Dilution Factor: 1		Analysis Time...: 17:56	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.10
Beryllium	0.48 B	0.50	mg/kg	SW846 6010B	03/10-03/13/01	DW7TV1AJ
		Dilution Factor: 1		Analysis Time...: 17:56	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.050
Cadmium	ND	0.50	mg/kg	SW846 6010B	03/10-03/13/01	DW7TV1AK
		Dilution Factor: 1		Analysis Time...: 17:56	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.050
Cobalt	8.0	5.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7TV1AL
		Dilution Factor: 1		Analysis Time...: 17:56	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.10
Chromium	26.3	1.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7TV1AX
		Dilution Factor: 1		Analysis Time...: 17:56	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.10
Copper	31.3	2.5	mg/kg	SW846 6010B	03/10-03/13/01	DW7TV1AM
		Dilution Factor: 1		Analysis Time...: 17:56	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.40

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000033

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-1-030901

## TOTAL Metals

Lot-Sample #....: E1C090309-001

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK
		LIMIT	UNITS				
Molybdenum	0.97 B	4.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7TV1AP
		Dilution Factor: 1			Analysis Time...: 17:56	Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234	MDL.....: 0.30	
Nickel	17.9	4.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7TV1AQ
		Dilution Factor: 1			Analysis Time...: 17:56	Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234	MDL.....: 0.30	
Lead	10.7	0.50	mg/kg		SW846 6010B	03/10-03/13/01	DW7TV1AN
		Dilution Factor: 1			Analysis Time...: 17:56	Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234	MDL.....: 0.30	
Antimony	ND	6.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7TV1AF
		Dilution Factor: 1			Analysis Time...: 17:56	Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234	MDL.....: 0.20	
Selenium	ND	0.50	mg/kg		SW846 6010B	03/10-03/13/01	DW7TV1AR
		Dilution Factor: 1			Analysis Time...: 17:56	Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234	MDL.....: 0.40	
Thallium	1.3	1.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7TV1AU
		Dilution Factor: 1			Analysis Time...: 17:56	Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234	MDL.....: 0.50	
Vanadium	42.9	5.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7TV1AV
		Dilution Factor: 1			Analysis Time...: 17:56	Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234	MDL.....: 0.10	
Zinc	60.5	2.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7TV1AW
		Dilution Factor: 1			Analysis Time...: 17:56	Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234	MDL.....: 1.0	
Prep Batch #....: 1069113							
Mercury	0.064 B	0.10	mg/kg		SW846 7471A	03/13/01	DW7TV1A0
		Dilution Factor: 1			Analysis Time...: 15:12	Analyst ID.....: 0210884	
		Instrument ID...: M04			MS Run #.....: 1069016	MDL.....: 0.020	

## NOTE(S) :

B Estimated result. Result is less than RL.

000034

BOE-C6-0232212

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-2-030901

## TOTAL Metals

Lot-Sample #....: E1C090309-002  
 Date Sampled...: 03/09/01 10:10 Date Received...: 03/09/01 15:35 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
<b>Prep Batch #....: 1069112</b>						
Silver	ND	1.0	mg/kg	SW846 6010B	03/10-03/13/01 DW7T41AV	
		Dilution Factor: 1		Analysis Time...: 18:04	Analyst ID.....: 003119	
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 0.10	
Aluminum	14000	20.0	mg/kg	SW846 6010B	03/10-03/13/01 DW7T41AG	
		Dilution Factor: 1		Analysis Time...: 18:04	Analyst ID.....: 0031194	
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 8.0	
Arsenic	5.5	1.0	mg/kg	SW846 6010B	03/10-03/13/01 DW7T41AJ	
		Dilution Factor: 1		Analysis Time...: 18:04	Analyst ID.....: 0031194	
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 0.40	
Barium	104	2.0	mg/kg	SW846 6010B	03/10-03/13/01 DW7T41AK	
		Dilution Factor: 1		Analysis Time...: 18:04	Analyst ID.....: 0031194	
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 0.10	
Beryllium	0.51	0.50	mg/kg	SW846 6010B	03/10-03/13/01 DW7T41AL	
		Dilution Factor: 1		Analysis Time...: 18:04	Analyst ID.....: 0031194	
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 0.050	
Cadmium	ND	0.50	mg/kg	SW846 6010B	03/10-03/13/01 DW7T41AM	
		Dilution Factor: 1		Analysis Time...: 18:04	Analyst ID.....: 0031194	
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 0.050	
Cobalt	7.4	5.0	mg/kg	SW846 6010B	03/10-03/13/01 DW7T41AN	
		Dilution Factor: 1		Analysis Time...: 18:04	Analyst ID.....: 0031194	
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 0.10	
Chromium	26.7	1.0	mg/kg	SW846 6010B	03/10-03/13/01 DW7T41A1	
		Dilution Factor: 1		Analysis Time...: 18:04	Analyst ID.....: 0031194	
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 0.10	
Copper	28.8	2.5	mg/kg	SW846 6010B	03/10-03/13/01 DW7T41AP	
		Dilution Factor: 1		Analysis Time...: 18:04	Analyst ID.....: 0031194	
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 0.40	

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## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-2-030901

## TOTAL Metals

Lot-Sample #...: E1C090309-002

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK	ANALYSIS DATE	ORDER #
		LIMIT	UNITS						
Molybdenum	1.1 B	4.0	mg/kg		SW846 6010B			03/10-03/13/01	DW7T41AR
		Dilution Factor: 1			Analysis Time...: 18:04				Analyst ID.....: 0031194
		Instrument ID...: M01			MS Run #.....: 1072234				MDL.....: 0.30
Nickel	18.2	4.0	mg/kg		SW846 6010B			03/10-03/13/01	DW7T41AT
		Dilution Factor: 1			Analysis Time...: 18:04				Analyst ID.....: 0031194
		Instrument ID...: M01			MS Run #.....: 1072234				MDL.....: 0.30
Lead	19.2	0.50	mg/kg		SW846 6010B			03/10-03/13/01	DW7T41AQ
		Dilution Factor: 1			Analysis Time...: 18:04				Analyst ID.....: 0031194
		Instrument ID...: M01			MS Run #.....: 1072234				MDL.....: 0.30
Antimony	0.58 B	6.0	mg/kg		SW846 6010B			03/10-03/13/01	DW7T41AH
		Dilution Factor: 1			Analysis Time...: 18:04				Analyst ID.....: 0031194
		Instrument ID...: M01			MS Run #.....: 1072234				MDL.....: 0.20
Selenium	ND	0.50	mg/kg		SW846 6010B			03/10-03/13/01	DW7T41AU
		Dilution Factor: 1			Analysis Time...: 18:04				Analyst ID.....: 0031194
		Instrument ID...: M01			MS Run #.....: 1072234				MDL.....: 0.40
Thallium	0.85 B	1.0	mg/kg		SW846 6010B			03/10-03/13/01	DW7T41AW
		Dilution Factor: 1			Analysis Time...: 18:04				Analyst ID.....: 0031194
		Instrument ID...: M01			MS Run #.....: 1072234				MDL.....: 0.50
Vanadium	45.5	5.0	mg/kg		SW846 6010B			03/10-03/13/01	DW7T41AX
		Dilution Factor: 1			Analysis Time...: 18:04				Analyst ID.....: 0031194
		Instrument ID...: M01			MS Run #.....: 1072234				MDL.....: 0.10
Zinc	67.1	2.0	mg/kg		SW846 6010B			03/10-03/13/01	DW7T41AO
		Dilution Factor: 1			Analysis Time...: 18:04				Analyst ID.....: 0031194
		Instrument ID...: M01			MS Run #.....: 1072234				MDL.....: 1.0
Prep Batch #...: 1069113									
Mercury	0.045 B	0.10	mg/kg		SW846 7471A			03/13/01	DW7T41AA
		Dilution Factor: 1			Analysis Time...: 15:14				Analyst ID.....: 0210884
		Instrument ID...: M04			MS Run #.....: 1069016				MDL.....: 0.020

## NOTE(S) :

B Estimated result. Result is less than RL.

000036

BOE-C6-0232214

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-3-030901

## TOTAL Metals

Lot-Sample #...: E1C090309-003 Date Sampled...: 03/09/01 10:15 Date Received...: 03/09/01 15:35				Matrix.....: SOLID	
PARAMETER	RESULT	REPORTING LIMIT	UNITS	PREPARATION- ANALYSIS DATE	WORK ORDER #
<b>Prep Batch #...: 1069112</b>					
Silver	ND	1.0	mg/kg	SW846 6010B	03/10-03/13/01 DW7T71AV
		Dilution Factor: 1		Analysis Time...: 18:13	Analyst ID.....: 003119
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 0.10
Aluminum	15100	20.0	mg/kg	SW846 6010B	03/10-03/13/01 DW7T71AG
		Dilution Factor: 1		Analysis Time...: 18:13	Analyst ID.....: 0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 8.0
Arsenic	6.6	1.0	mg/kg	SW846 6010B	03/10-03/13/01 DW7T71AJ
		Dilution Factor: 1		Analysis Time...: 18:13	Analyst ID.....: 0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 0.40
Barium	106	2.0	mg/kg	SW846 6010B	03/10-03/13/01 DW7T71AK
		Dilution Factor: 1		Analysis Time...: 18:13	Analyst ID.....: 0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 0.10
Beryllium	0.55	0.50	mg/kg	SW846 6010B	03/10-03/13/01 DW7T71AL
		Dilution Factor: 1		Analysis Time...: 18:13	Analyst ID.....: 0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 0.050
Cadmium	ND	0.50	mg/kg	SW846 6010B	03/10-03/13/01 DW7T71AM
		Dilution Factor: 1		Analysis Time...: 18:13	Analyst ID.....: 0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 0.050
Cobalt	8.2	5.0	mg/kg	SW846 6010B	03/10-03/13/01 DW7T71AN
		Dilution Factor: 1		Analysis Time...: 18:13	Analyst ID.....: 0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 0.10
Chromium	27.4	1.0	mg/kg	SW846 6010B	03/10-03/13/01 DW7T71A1
		Dilution Factor: 1		Analysis Time...: 18:13	Analyst ID.....: 0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 0.10
Copper	33.2	2.5	mg/kg	SW846 6010B	03/10-03/13/01 DW7T71AP
		Dilution Factor: 1		Analysis Time...: 18:13	Analyst ID.....: 0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 0.40

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000037

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-3-030901

## TOTAL Metals

Lot-Sample #...: E1C090309-003

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK	ORDER #
		LIMIT	UNITS					
Molybdenum	1.2 B	4.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7T71AR	
		Dilution Factor: 1			Analysis Time...: 18:13		Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234		MDL.....: 0.30	
Nickel	19.2	4.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7T71AT	
		Dilution Factor: 1			Analysis Time...: 18:13		Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234		MDL.....: 0.30	
Lead	17.2	0.50	mg/kg		SW846 6010B	03/10-03/13/01	DW7T71AQ	
		Dilution Factor: 1			Analysis Time...: 18:13		Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234		MDL.....: 0.30	
Antimony	0.26 B	6.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7T71AH	
		Dilution Factor: 1			Analysis Time...: 18:13		Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234		MDL.....: 0.20	
Selenium	ND	0.50	mg/kg		SW846 6010B	03/10-03/13/01	DW7T71AU	
		Dilution Factor: 1			Analysis Time...: 18:13		Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234		MDL.....: 0.40	
Thallium	0.98 B	1.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7T71AW	
		Dilution Factor: 1			Analysis Time...: 18:13		Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234		MDL.....: 0.50	
Vanadium	48.3	5.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7T71AX	
		Dilution Factor: 1			Analysis Time...: 18:13		Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234		MDL.....: 0.10	
Zinc	64.9	2.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7T71A0	
		Dilution Factor: 1			Analysis Time...: 18:13		Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234		MDL.....: 1.0	
Prep Batch #...: 1069113								
Mercury	0.031 B	0.10	mg/kg		SW846 7471A	03/13/01	DW7T71AA	
		Dilution Factor: 1			Analysis Time...: 15:15		Analyst ID.....: 0210884	
		Instrument ID...: M04			MS Run #.....: 1069016		MDL.....: 0.020	

## NOTE(S) :

B Estimated result. Result is less than RL.

000038

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-I-1-030901

## TOTAL Metals

Lot-Sample #....: E1C090309-004 Matrix.....: SOLID  
 Date Sampled...: 03/09/01 11:15 Date Received...: 03/09/01 15:35

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
		LIMIT	UNITS				
<b>Prep Batch #....: 1069112</b>							
Silver	ND	1.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7VC1AV	
		Dilution Factor: 1		Analysis Time...: 18:21	Analyst ID.....: 003119		
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 0.10		
Aluminum	9310	20.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7VC1AG	
		Dilution Factor: 1		Analysis Time...: 18:21	Analyst ID.....: 0031194		
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 8.0		
Arsenic	4.4	1.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7VC1AJ	
		Dilution Factor: 1		Analysis Time...: 18:21	Analyst ID.....: 0031194		
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 0.40		
Barium	80.9	2.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7VC1AK	
		Dilution Factor: 1		Analysis Time...: 18:21	Analyst ID.....: 0031194		
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 0.10		
Beryllium	0.33 B	0.50	mg/kg	SW846 6010B	03/10-03/13/01	DW7VC1AL	
		Dilution Factor: 1		Analysis Time...: 18:21	Analyst ID.....: 0031194		
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 0.050		
Cadmium	ND	0.50	mg/kg	SW846 6010B	03/10-03/13/01	DW7VC1AM	
		Dilution Factor: 1		Analysis Time...: 18:21	Analyst ID.....: 0031194		
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 0.050		
Cobalt	5.0	5.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7VC1AN	
		Dilution Factor: 1		Analysis Time...: 18:21	Analyst ID.....: 0031194		
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 0.10		
Chromium	16.4	1.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7VC1A1	
		Dilution Factor: 1		Analysis Time...: 18:21	Analyst ID.....: 0031194		
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 0.10		
Copper	22.7	2.5	mg/kg	SW846 6010B	03/10-03/13/01	DW7VC1AP	
		Dilution Factor: 1		Analysis Time...: 18:21	Analyst ID.....: 0031194		
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 0.40		

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000039

BOE-C6-0232217

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-I-1-030901

## TOTAL Metals

Lot-Sample #....: E1C090309-004

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK	ANALYSIS DATE	ORDER #
		LIMIT	UNITS						
Molybdenum	0.62 B	4.0	mg/kg		SW846 6010B			03/10-03/13/01	DW7VC1AR
		Dilution Factor: 1			Analysis Time...: 18:21			Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234			MDL.....: 0.30	
Nickel	10.4	4.0	mg/kg		SW846 6010B			03/10-03/13/01	DW7VC1AT
		Dilution Factor: 1			Analysis Time...: 18:21			Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234			MDL.....: 0.30	
Lead	13.0	0.50	mg/kg		SW846 6010B			03/10-03/13/01	DW7VC1AQ
		Dilution Factor: 1			Analysis Time...: 18:21			Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234			MDL.....: 0.30	
Antimony	ND	6.0	mg/kg		SW846 6010B			03/10-03/13/01	DW7VC1AH
		Dilution Factor: 1			Analysis Time...: 18:21			Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234			MDL.....: 0.20	
Selenium	ND	0.50	mg/kg		SW846 6010B			03/10-03/13/01	DW7VC1AU
		Dilution Factor: 1			Analysis Time...: 18:21			Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234			MDL.....: 0.40	
Thallium	ND	1.0	mg/kg		SW846 6010B			03/10-03/13/01	DW7VC1AW
		Dilution Factor: 1			Analysis Time...: 18:21			Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234			MDL.....: 0.50	
Vanadium	27.8	5.0	mg/kg		SW846 6010B			03/10-03/13/01	DW7VC1AX
		Dilution Factor: 1			Analysis Time...: 18:21			Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234			MDL.....: 0.10	
Zinc	55.1	2.0	mg/kg		SW846 6010B			03/10-03/13/01	DW7VC1AO
		Dilution Factor: 1			Analysis Time...: 18:21			Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234			MDL.....: 1.0	
Prep Batch #....:	1069113								
Mercury	0.062 B	0.10	mg/kg		SW846 7471A			03/13/01	DW7VC1AA
		Dilution Factor: 1			Analysis Time...: 15:17			Analyst ID.....: 0210884	
		Instrument ID...: M04			MS Run #.....: 1069016			MDL.....: 0.020	

## NOTE(S) :

B Estimated result. Result is less than RL.

000040

BOE-C6-0232218

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-I-2-030901

## TOTAL Metals

Lot-Sample #....:	E1C090309-005			Matrix.....:	SOLID
Date Sampled....:	03/09/01 11:20			Date Received...:	03/09/01 15:35
PARAMETER	RESULT	REPORTING LIMIT	UNITS	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #....:	1069112				
Vanadium	24.3	5.0	mg/kg	SW846 6010B	03/10-03/13/01 DW7VD1AX
		Dilution Factor: 1		Analysis Time...:	18:29 Analyst ID.....: 003119
		Instrument ID...: M01		MS Run #.....:	1072234 MDL.....: 0.10
Zinc	26.7	2.0	mg/kg	SW846 6010B	03/10-03/13/01 DW7VD1A0
		Dilution Factor: 1		Analysis Time...:	18:29 Analyst ID.....: 0031194
		Instrument ID...: M01		MS Run #.....:	1072234 MDL.....: 1.0
Silver	ND	1.0	mg/kg	SW846 6010B	03/10-03/13/01 DW7VD1AV
		Dilution Factor: 1		Analysis Time...:	18:29 Analyst ID.....: 0031194
		Instrument ID...: M01		MS Run #.....:	1072234 MDL.....: 0.10
Aluminum	7460	20.0	mg/kg	SW846 6010B	03/10-03/13/01 DW7VD1AG
		Dilution Factor: 1		Analysis Time...:	18:29 Analyst ID.....: 0031194
		Instrument ID...: M01		MS Run #.....:	1072234 MDL.....: 8.0
Arsenic	1.4	1.0	mg/kg	SW846 6010B	03/10-03/13/01 DW7VD1AJ
		Dilution Factor: 1		Analysis Time...:	18:29 Analyst ID.....: 0031194
		Instrument ID...: M01		MS Run #.....:	1072234 MDL.....: 0.40
Barium	57.8	2.0	mg/kg	SW846 6010B	03/10-03/13/01 DW7VD1AK
		Dilution Factor: 1		Analysis Time...:	18:29 Analyst ID.....: 0031194
		Instrument ID...: M01		MS Run #.....:	1072234 MDL.....: 0.10
Beryllium	0.25 B	0.50	mg/kg	SW846 6010B	03/10-03/13/01 DW7VD1AL
		Dilution Factor: 1		Analysis Time...:	18:29 Analyst ID.....: 0031194
		Instrument ID...: M01		MS Run #.....:	1072234 MDL.....: 0.050
Cadmium	ND	0.50	mg/kg	SW846 6010B	03/10-03/13/01 DW7VD1AM
		Dilution Factor: 1		Analysis Time...:	18:29 Analyst ID.....: 0031194
		Instrument ID...: M01		MS Run #.....:	1072234 MDL.....: 0.050
Cobalt	3.6 B	5.0	mg/kg	SW846 6010B	03/10-03/13/01 DW7VD1AN
		Dilution Factor: 1		Analysis Time...:	18:29 Analyst ID.....: 0031194
		Instrument ID...: M01		MS Run #.....:	1072234 MDL.....: 0.10

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000041

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-I-2-030901

## TOTAL Metals

Lot-Sample #....: E1C090309-005

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK	ANALYSIS DATE	ORDER #
		LIMIT	UNITS						
Chromium	7.6	1.0	mg/kg		SW846 6010B			03/10-03/13/01	DW7VD1A1
		Dilution Factor: 1				Analysis Time...: 18:29			Analyst ID.....: 0031194
		Instrument ID...: M01				MS Run #.....: 1072234			MDL.....: 0.10
Copper	7.5	2.5	mg/kg		SW846 6010B			03/10-03/13/01	DW7VD1AP
		Dilution Factor: 1				Analysis Time...: 18:29			Analyst ID.....: 0031194
		Instrument ID...: M01				MS Run #.....: 1072234			MDL.....: 0.40
Molybdenum	ND	4.0	mg/kg		SW846 6010B			03/10-03/13/01	DW7VD1AR
		Dilution Factor: 1				Analysis Time...: 18:29			Analyst ID.....: 0031194
		Instrument ID...: M01				MS Run #.....: 1072234			MDL.....: 0.30
Nickel	5.1	4.0	mg/kg		SW846 6010B			03/10-03/13/01	DW7VD1AT
		Dilution Factor: 1				Analysis Time...: 18:29			Analyst ID.....: 0031194
		Instrument ID...: M01				MS Run #.....: 1072234			MDL.....: 0.30
Lead	1.9	0.50	mg/kg		SW846 6010B			03/10-03/13/01	DW7VD1AQ
		Dilution Factor: 1				Analysis Time...: 18:29			Analyst ID.....: 0031194
		Instrument ID...: M01				MS Run #.....: 1072234			MDL.....: 0.30
Antimony	ND	6.0	mg/kg		SW846 6010B			03/10-03/13/01	DW7VD1AH
		Dilution Factor: 1				Analysis Time...: 18:29			Analyst ID.....: 0031194
		Instrument ID...: M01				MS Run #.....: 1072234			MDL.....: 0.20
Selenium	ND	0.50	mg/kg		SW846 6010B			03/10-03/13/01	DW7VD1AU
		Dilution Factor: 1				Analysis Time...: 18:29			Analyst ID.....: 0031194
		Instrument ID...: M01				MS Run #.....: 1072234			MDL.....: 0.40
Thallium	0.52 B	1.0	mg/kg		SW846 6010B			03/10-03/13/01	DW7VD1AW
		Dilution Factor: 1				Analysis Time...: 18:29			Analyst ID.....: 0031194
		Instrument ID...: M01				MS Run #.....: 1072234			MDL.....: 0.50
Prep Batch #....:	1069113								
Mercury	0.026 B	0.10	mg/kg		SW846 7471A			03/13/01	DW7VD1AA
		Dilution Factor: 1				Analysis Time...: 15:19			Analyst ID.....: 0210884
		Instrument ID...: M04				MS Run #.....: 1069016			MDL.....: 0.020

NOTE(S) :

B Estimated result. Result is less than RL.

000042

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Build -2-AE-13-030901-1

## GC Semivolatiles

Lot-Sample #....: E1C090309-006    Work Order #....: DW7VF1AC    Matrix.....: SOLID  
 Date Sampled....: 03/09/01 08:00    Date Received...: 03/09/01 15:35    MS Run #....: 1071274  
 Prep Date.....: 03/12/01              Analysis Date...: 03/14/01  
 Prep Batch #....: 1071498              Analysis Time...: 18:14  
 Dilution Factor: 1  
 Analyst ID.....: 356074              Instrument ID...: G03  
 Method.....: SW846 8015B

<u>PARAMETER</u>	<u>REPORTING</u>			
	<u>RESULT</u>	<u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
C8-C9	ND	10	mg/kg	5.0
C10-C11	ND	10	mg/kg	5.0
C12-C13	ND	10	mg/kg	5.0
C14-C15	ND	10	mg/kg	5.0
C16-C17	ND	10	mg/kg	5.0
C18-C19	ND	10	mg/kg	5.0
C20-C23	ND	10	mg/kg	5.0
C24-C27	ND	10	mg/kg	5.0
C28-C31	ND	10	mg/kg	5.0
C32-C35	ND	10	mg/kg	5.0
C36-C39	ND	10	mg/kg	5.0
C40+	ND	10	mg/kg	5.0
Total Carbon Chain Range	ND	10	mg/kg	5.0

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
Benzo(a)pyrene	104	(60 - 130)

000029

KENNEDY/JENKS CONSULTANTS

Client Sample ID: Build -2-AE-13-030901-1

GC Volatiles

Lot-Sample #....: E1C090309-006    Work Order #....: DW7VF1AD    Matrix.....: SOLID  
Date Sampled....: 03/09/01 08:00    Date Received...: 03/09/01 15:35    MS Run #.....: 1072196  
Prep Date.....: 03/12/01    Analysis Date...: 03/12/01  
Prep Batch #....: 1072404    Analysis Time...: 15:44  
Dilution Factor: 1  
Analyst ID.....: 001464    Instrument ID...: G16  
                    Method.....: SW846 8015B

PARAMETER	REPORTING			
	RESULT	LIMIT	UNITS	MDL
C6-C8	ND	1.0	mg/kg	0.10
SURROGATE	PERCENT			
	RECOVERY	RECOVERY LIMITS		
a,a,a-Trifluorotoluene (TFT)	85	(60 - 130)		

000030

BOE-C6-0232222

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Build -2-AE-13-030901-1

## GC/MS Volatiles

Lot-Sample #....: E1C090309-006    Work Order #....: DW7VF1AA    Matrix.....: SOLID  
 Date Sampled....: 03/09/01 08:00    Date Received...: 03/09/01 15:35 MS Run #.....: 1072160  
 Prep Date.....: 03/12/01    Analysis Date...: 03/12/01  
 Prep Batch #....: 1072350    Analysis Time...: 18:55  
 Dilution Factor: 1  
 Analyst ID.....: 999998    Instrument ID...: MSG  
 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND	10	ug/kg	2.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND	10	ug/kg	5.0
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	2.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND	50	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND	20	ug/kg	10
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0

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000031

BOE-C6-0232223

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Build -2-AE-13-030901-1

## GC/MS Volatiles

Lot-Sample #....: E1C090309-006 Work Order #....: DW7VF1AA Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		
		<u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	5.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
<u>SURROGATE</u>		<u>PERCENT</u>	<u>RECOVERY</u>	
		<u>RECOVERY</u>	<u>LIMITS</u>	
Bromofluorobenzene	101		(70 - 130)	
1,2-Dichloroethane-d4	104		(60 - 140)	
Toluene-d8	111		(70 - 130)	

000032

**KENNEDY/JENKS CONSULTANTS**

Client Sample ID: Build -2-AE-13-030901-1

**TOTAL Metals**

Lot-Sample #....: E1C090309-006                           Matrix.....: SOLID  
 Date Sampled...: 03/09/01 08:00   Date Received...: 03/09/01 15:35

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #....:	1069112					
Silver	ND	1.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7VF1AT
		Dilution Factor: 1		Analysis Time...: 18:38	Analyst ID.....:	003119
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.10
Aluminum	24800	20.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7VF1AE
		Dilution Factor: 1		Analysis Time...: 18:38	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	8.0
Arsenic	5.2	1.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7VF1AG
		Dilution Factor: 1		Analysis Time...: 18:38	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.40
Barium	168	2.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7VF1AH
		Dilution Factor: 1		Analysis Time...: 18:38	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.10
Beryllium	0.82	0.50	mg/kg	SW846 6010B	03/10-03/13/01	DW7VF1AJ
		Dilution Factor: 1		Analysis Time...: 18:38	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.050
Cadmium	ND	0.50	mg/kg	SW846 6010B	03/10-03/13/01	DW7VF1AK
		Dilution Factor: 1		Analysis Time...: 18:38	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.050
Cobalt	12.5	5.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7VF1AL
		Dilution Factor: 1		Analysis Time...: 18:38	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.10
Chromium	29.1	1.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7VF1AX
		Dilution Factor: 1		Analysis Time...: 18:38	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.10
Copper	39.9	2.5	mg/kg	SW846 6010B	03/10-03/13/01	DW7VF1AM
		Dilution Factor: 1		Analysis Time...: 18:38	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.40

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**000043**

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Build -2-AE-13-030901-1

## TOTAL Metals

Lot-Sample #...: E1C090309-006

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
		LIMIT	UNITS				
Molybdenum	0.49 B	4.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7VF1AP
		Dilution Factor: 1			Analysis Time...: 18:38		Analyst ID.....: 0031194
		Instrument ID...: M01			MS Run #.....: 1072234		MDL.....: 0.30
Nickel	20.6	4.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7VF1AQ
		Dilution Factor: 1			Analysis Time...: 18:38		Analyst ID.....: 0031194
		Instrument ID...: M01			MS Run #.....: 1072234		MDL.....: 0.30
Lead	6.3	0.50	mg/kg		SW846 6010B	03/10-03/13/01	DW7VF1AN
		Dilution Factor: 1			Analysis Time...: 18:38		Analyst ID.....: 0031194
		Instrument ID...: M01			MS Run #.....: 1072234		MDL.....: 0.30
Antimony	ND	6.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7VF1AF
		Dilution Factor: 1			Analysis Time...: 18:38		Analyst ID.....: 0031194
		Instrument ID...: M01			MS Run #.....: 1072234		MDL.....: 0.20
Selenium	ND	0.50	mg/kg		SW846 6010B	03/10-03/13/01	DW7VF1AR
		Dilution Factor: 1			Analysis Time...: 18:38		Analyst ID.....: 0031194
		Instrument ID...: M01			MS Run #.....: 1072234		MDL.....: 0.40
Thallium	0.91 B	1.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7VF1AU
		Dilution Factor: 1			Analysis Time...: 18:38		Analyst ID.....: 0031194
		Instrument ID...: M01			MS Run #.....: 1072234		MDL.....: 0.50
Vanadium	58.1	5.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7VF1AV
		Dilution Factor: 1			Analysis Time...: 18:38		Analyst ID.....: 0031194
		Instrument ID...: M01			MS Run #.....: 1072234		MDL.....: 0.10
Zinc	71.2	2.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7VF1AW
		Dilution Factor: 1			Analysis Time...: 18:38		Analyst ID.....: 0031194
		Instrument ID...: M01			MS Run #.....: 1072234		MDL.....: 1.0
Prep Batch #...: 1069113							
Mercury	ND	0.10	mg/kg		SW846 7471A	03/13/01	DW7VF1AO
		Dilution Factor: 1			Analysis Time...: 15:20		Analyst ID.....: 0210884
		Instrument ID...: M04			MS Run #.....: 1069016		MDL.....: 0.020

## NOTE(S) :

B Estimated result. Result is less than RL.

000044

# QC DATA ASSOCIATION SUMMARY

E1C090309

## Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	SOLID	SW846 8015B		1071498	1071274
	SOLID	SW846 8015B		1072404	1072196
	SOLID	SW846 7471A		1069113	1069016
	SOLID	SW846 8260B		1072350	1072160
	SOLID	SW846 6010B		1069112	1072234
002	SOLID	SW846 8015B		1071498	1071274
	SOLID	SW846 8015B		1072404	1072196
	SOLID	SW846 7471A		1069113	1069016
	SOLID	SW846 8260B		1072350	1072160
	SOLID	SW846 6010B		1069112	1072234
003	SOLID	SW846 8015B		1071498	1071274
	SOLID	SW846 8015B		1072404	1072196
	SOLID	SW846 7471A		1069113	1069016
	SOLID	SW846 8260B		1072350	1072160
	SOLID	SW846 6010B		1069112	1072234
004	SOLID	SW846 8015B		1071498	1071274
	SOLID	SW846 8015B		1072404	1072196
	SOLID	SW846 7471A		1069113	1069016
	SOLID	SW846 8260B		1072350	1072160
	SOLID	SW846 6010B		1069112	1072234
005	SOLID	SW846 8015B		1071498	1071274
	SOLID	SW846 8015B		1072404	1072196
	SOLID	SW846 7471A		1069113	1069016
	SOLID	SW846 8260B		1072350	1072160
	SOLID	SW846 6010B		1069112	1072234
006	SOLID	SW846 8015B		1071498	1071274
	SOLID	SW846 8015B		1072404	1072196
	SOLID	SW846 7471A		1069113	1069016
	SOLID	SW846 8260B		1072350	1072160
	SOLID	SW846 6010B		1069112	1072234

000045

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #....: E1C090309  
MB Lot-Sample #: E1C120000-498  
Analysis Date...: 03/14/01  
Dilution Factor: 1

Work Order #....: DW9T51AA  
Prep Date.....: 03/12/01  
Prep Batch #....: 1071498  
Analyst ID.....: 356074

Matrix.....: SOLID  
Analysis Time...: 13:03  
Instrument ID..: G03

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	METHOD
C8-C9	ND	10	mg/kg	SW846 8015B
C10-C11	ND	10	mg/kg	SW846 8015B
C12-C13	ND	10	mg/kg	SW846 8015B
C14-C15	ND	10	mg/kg	SW846 8015B
C16-C17	ND	10	mg/kg	SW846 8015B
C18-C19	ND	10	mg/kg	SW846 8015B
C20-C23	ND	10	mg/kg	SW846 8015B
C24-C27	ND	10	mg/kg	SW846 8015B
C28-C31	ND	10	mg/kg	SW846 8015B
C32-C35	ND	10	mg/kg	SW846 8015B
C36-C39	ND	10	mg/kg	SW846 8015B
C40+	ND	10	mg/kg	SW846 8015B
Total Carbon Chain Range	ND	10	mg/kg	SW846 8015B
SURROGATE	PERCENT	RECOVERY		
		RECOVERY	LIMITS	
Benzo (a) pyrene	99	(60 - 130)		

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

000046

BOE-C6-0232228

**METHOD BLANK REPORT****GC/MS Volatiles**

**Client Lot #....:** E1C090309  
**MB Lot-Sample #:** E1C130000-350  
**Analysis Date..:** 03/12/01  
**Dilution Factor:** 1

**Work Order #....:** DXAPJ1AA  
**Prep Date.....:** 03/12/01  
**Prep Batch #....:** 1072350

**Matrix.....:** SOLID  
**Analysis Time..:** 10:56  
**Instrument ID..:** MSG

**Analyst ID.....:** 999998

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
Dichlorodifluoromethane	ND	10	ug/kg	SW846 8260B
Chloromethane	ND	10	ug/kg	SW846 8260B
Vinyl chloride	ND	10	ug/kg	SW846 8260B
Bromomethane	ND	10	ug/kg	SW846 8260B
Chloroethane	ND	10	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	10	ug/kg	SW846 8260B
Acrolein	ND	100	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
Iodomethane	ND	10	ug/kg	SW846 8260B
Acetone	ND	25	ug/kg	SW846 8260B
Carbon disulfide	ND	5.0	ug/kg	SW846 8260B
Methylene chloride	ND	5.0	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
Acrylonitrile	ND	50	ug/kg	SW846 8260B
Methyl tert-butyl ether	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
Vinyl acetate	ND	10	ug/kg	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
2-Butanone	ND	25	ug/kg	SW846 8260B
Bromochloromethane	ND	5.0	ug/kg	SW846 8260B
Chloroform	ND	5.0	ug/kg	SW846 8260B
Tetrahydrofuran	ND	20	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/kg	SW846 8260B
Benzene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
Trichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
Bromodichloromethane	ND	5.0	ug/kg	SW846 8260B
2-Chloroethyl vinyl ether	ND	10	ug/kg	SW846 8260B
cis-1,3-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
4-Methyl-2-pentanone	ND	25	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B
trans-1,3-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
Tetrachloroethene	ND	5.0	ug/kg	SW846 8260B
2-Hexanone	ND	25	ug/kg	SW846 8260B
Dibromochloromethane	ND	5.0	ug/kg	SW846 8260B

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**000047**

**BOE-C6-0232229**

## METHOD BLANK REPORT

## GC/MS Volatiles

Client Lot #....: E1C090309

Work Order #....: DXAPJ1AA

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		
		<u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
1,2-Dibromoethane	ND	5.0	ug/kg	SW846 8260B
Chlorobenzene	ND	5.0	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B
Styrene	ND	10	ug/kg	SW846 8260B
Bromoform	ND	5.0	ug/kg	SW846 8260B
Isopropylbenzene	ND	5.0	ug/kg	SW846 8260B
p-Isopropyltoluene	ND	5.0	ug/kg	SW846 8260B
Bromobenzene	ND	5.0	ug/kg	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/kg	SW846 8260B
n-Propylbenzene	ND	5.0	ug/kg	SW846 8260B
2-Chlorotoluene	ND	5.0	ug/kg	SW846 8260B
4-Chlorotoluene	ND	5.0	ug/kg	SW846 8260B
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	SW846 8260B
tert-Butylbenzene	ND	5.0	ug/kg	SW846 8260B
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	SW846 8260B
sec-Butylbenzene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
n-Butylbenzene	ND	5.0	ug/kg	SW846 8260B
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/kg	SW846 8260B
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	SW846 8260B
<u>SURROGATE</u>		<u>PERCENT</u>	<u>RECOVERY</u>	
		<u>RECOVERY</u>	<u>LIMITS</u>	
Bromofluorobenzene	95	(70 - 130)		
1,2-Dichloroethane-d4	88	(60 - 140)		
Toluene-d8	107	(70 - 130)		

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

000048

**METHOD BLANK REPORT**

**GC Volatiles**

Client Lot #....: E1C090309  
MB Lot-Sample #: E1C130000-404  
  
Analysis Date...: 03/12/01  
Dilution Factor: 1

Work Order #....: DXAXR1AA

Prep Date.....: 03/12/01  
Prep Batch #....: 1072404

Matrix.....: SOLID  
  
Analysis Time..: 12:16  
Instrument ID..: G16

Analyst ID.....: 001464

PARAMETER	RESULT	REPORTING		METHOD
		LIMIT	UNITS	
C6-C8	ND	1.0	mg/kg	SW846 8015B
SURROGATE	PERCENT	RECOVERY		
a,a,a-Trifluorotoluene (TFT)	RECOVERY	LIMITS		
	79	(60 - 130)		

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

**000049**

**BOE-C6-0232231**

## METHOD BLANK REPORT

## TOTAL Metals

Client Lot #....: E1C090309

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
<b>MB Lot-Sample #:</b> E1C100000-112 <b>Prep Batch #....:</b> 1069112						
Aluminum	ND	20.0	mg/kg	SW846 6010B	03/10-03/13/01	DW8JG1CD
		Dilution Factor: 1				
		Analysis Time...: 17:41		Analyst ID.....: 003119	Instrument ID...: M01	
Antimony	ND	6.0	mg/kg	SW846 6010B	03/10-03/13/01	DW8JG1AA
		Dilution Factor: 1				
		Analysis Time...: 17:41		Analyst ID.....: 003119	Instrument ID...: M01	
Arsenic	ND	1.0	mg/kg	SW846 6010B	03/10-03/13/01	DW8JG1AC
		Dilution Factor: 1				
		Analysis Time...: 17:41		Analyst ID.....: 003119	Instrument ID...: M01	
Barium	ND	2.0	mg/kg	SW846 6010B	03/10-03/13/01	DW8JG1AD
		Dilution Factor: 1				
		Analysis Time...: 17:41		Analyst ID.....: 003119	Instrument ID...: M01	
Beryllium	ND	0.50	mg/kg	SW846 6010B	03/10-03/13/01	DW8JG1AE
		Dilution Factor: 1				
		Analysis Time...: 17:41		Analyst ID.....: 003119	Instrument ID...: M01	
Cadmium	ND	0.50	mg/kg	SW846 6010B	03/10-03/13/01	DW8JG1AF
		Dilution Factor: 1				
		Analysis Time...: 17:41		Analyst ID.....: 003119	Instrument ID...: M01	
Chromium	ND	1.0	mg/kg	SW846 6010B	03/10-03/13/01	DW8JG1AT
		Dilution Factor: 1				
		Analysis Time...: 17:41		Analyst ID.....: 003119	Instrument ID...: M01	
Cobalt	ND	5.0	mg/kg	SW846 6010B	03/10-03/13/01	DW8JG1AG
		Dilution Factor: 1				
		Analysis Time...: 17:41		Analyst ID.....: 003119	Instrument ID...: M01	
Copper	ND	2.5	mg/kg	SW846 6010B	03/10-03/13/01	DW8JG1AH
		Dilution Factor: 1				
		Analysis Time...: 17:41		Analyst ID.....: 003119	Instrument ID...: M01	
Lead	0.32 B	0.50	mg/kg	SW846 6010B	03/10-03/13/01	DW8JG1AJ
		Dilution Factor: 1				
		Analysis Time...: 17:41		Analyst ID.....: 003119	Instrument ID...: M01	
Molybdenum	ND	4.0	mg/kg	SW846 6010B	03/10-03/13/01	DW8JG1AK
		Dilution Factor: 1				
		Analysis Time...: 17:41		Analyst ID.....: 003119	Instrument ID...: M01	

(Continued on next page)

000050

**METHOD BLANK REPORT****TOTAL Metals**

Client Lot #...: E1C090309

**Matrix.....: SOLID**

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK
		LIMIT	UNITS	ANALYSIS DATE			
Nickel	ND	4.0	mg/kg	SW846 6010B		03/10-03/13/01	DW8JG1AL
		Dilution Factor: 1					
		Analysis Time...: 17:41		Analyst ID.....: 003119		Instrument ID...: M01	
Selenium	ND	0.50	mg/kg	SW846 6010B		03/10-03/13/01	DW8JG1AM
		Dilution Factor: 1					
		Analysis Time...: 17:41		Analyst ID.....: 003119		Instrument ID...: M01	
Silver	ND	1.0	mg/kg	SW846 6010B		03/10-03/13/01	DW8JG1AN
		Dilution Factor: 1					
		Analysis Time...: 17:41		Analyst ID.....: 003119		Instrument ID...: M01	
Thallium	ND	1.0	mg/kg	SW846 6010B		03/10-03/13/01	DW8JG1AP
		Dilution Factor: 1					
		Analysis Time...: 17:41		Analyst ID.....: 003119		Instrument ID...: M01	
Vanadium	ND	5.0	mg/kg	SW846 6010B		03/10-03/13/01	DW8JG1AQ
		Dilution Factor: 1					
		Analysis Time...: 17:41		Analyst ID.....: 003119		Instrument ID...: M01	
Zinc	ND	2.0	mg/kg	SW846 6010B		03/10-03/13/01	DW8JG1AR
		Dilution Factor: 1					
		Analysis Time...: 17:41		Analyst ID.....: 003119		Instrument ID...: M01	

**MB Lot-Sample #: E1C100000-113 Prep Batch #: 1069113**

Mercury	ND	0.10	mg/kg	SW846 7471A	03/13/01	DW8JM1AA
		Dilution Factor: 1				
		Analysis Time...: 15:08		Analyst ID.....: 021088		Instrument ID...: M04

**NOTE(S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

**000051****BOE-C6-0232233**

## LABORATORY CONTROL SAMPLE DATA REPORT

## GC Semivolatiles

**Client Lot #....:** E1C090309      **Work Order #....:** DW9T51AC      **Matrix.....:** SOLID  
**LCS Lot-Sample#:** E1C120000-498  
**Prep Date.....:** 03/12/01      **Analysis Date...:** 03/14/01  
**Prep Batch #....:** 1071498      **Analysis Time...:** 13:41  
**Dilution Factor:** 1      **Instrument ID...:** G03  
**Analyst ID.....:** 356074

<u>PARAMETER</u>	<u>SPIKE</u>	<u>MEASURED</u>	<u>PERCENT</u>	<u>RECOVERY</u>	<u>METHOD</u>
	<u>AMOUNT</u>	<u>AMOUNT</u>	<u>UNITS</u>	<u>mg/kg</u>	
<b>TPH (as Diesel)</b>	<b>250</b>	<b>228</b>		<b>91</b>	<b>SW846 8015B</b>
<b>SURROGATE</b>			<u>PERCENT</u>	<u>RECOVERY</u>	
Benzo (a) pyrene			<u>RECOVERY</u>	<u>LIMITS</u>	
			101	(60 - 130)	

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

000052

## LABORATORY CONTROL SAMPLE DATA REPORT

## GC/MS Volatiles

Client Lot #....: E1C090309      Work Order #....: DXAPJ1AC      Matrix.....: SOLID  
 LCS Lot-Sample#: E1C130000-350  
 Prep Date.....: 03/12/01      Analysis Date...: 03/12/01  
 Prep Batch #....: 1072350      Analysis Time...: 12:41  
 Dilution Factor: 1      Instrument ID...: MSG  
 Analyst ID.....: 999998

<u>PARAMETER</u>	<u>SPIKE</u>	<u>MEASURED</u>	<u>PERCENT</u>		
	<u>AMOUNT</u>	<u>AMOUNT</u>	<u>UNITS</u>	<u>RECOVERY</u>	<u>METHOD</u>
1,1-Dichloroethene	50.0	50.4	ug/kg	101	SW846 8260B
Benzene	50.0	43.1	ug/kg	86	SW846 8260B
Trichloroethene	50.0	51.7	ug/kg	103	SW846 8260B
Toluene	50.0	47.9	ug/kg	96	SW846 8260B
Chlorobenzene	50.0	48.9	ug/kg	98	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
Bromofluorobenzene	100	(70 - 130)
1,2-Dichloroethane-d4	84	(60 - 140)
Toluene-d8	107	(70 - 130)

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

000053

BOE-C6-0232235

## LABORATORY CONTROL SAMPLE DATA REPORT

## GC Volatiles

**Client Lot #....:** E1C090309    **Work Order #....:** DXAXR1AC    **Matrix.....:** SOLID  
**LCS Lot-Sample#:** E1C130000-404  
**Prep Date.....:** 03/12/01    **Analysis Date...:** 03/12/01  
**Prep Batch #....:** 1072404    **Analysis Time...:** 11:48  
**Dilution Factor:** 1    **Instrument ID...:** G16  
**Analyst ID.....:** 001464

<u>PARAMETER</u>	<u>SPIKE</u>	<u>MEASURED</u>	<u>PERCENT</u>	<u>RECOVERY</u>	<u>METHOD</u>
	<u>AMOUNT</u>	<u>AMOUNT</u>	<u>UNITS</u>		
	5.00	5.29	mg/kg	106	SW846 8015B
<u>SURROGATE</u>			<u>PERCENT</u>	<u>RECOVERY</u>	
a,a,a-Trifluorotoluene (TFT)			<u>RECOVERY</u>	<u>LIMITS</u>	
		113		(60 - 130)	

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

000054

**LABORATORY CONTROL SAMPLE DATA REPORT**

**TOTAL Metals**

**Client Lot #....:** E1C090309

**Matrix.....:** SOLID

<u>PARAMETER</u>	<u>SPIKE AMOUNT</u>	<u>MEASURED AMOUNT</u>	<u>UNITS</u>	<u>PERCNT RECVRY</u>	<u>METHOD</u>	<u>PREPARATION-ANALYSIS DATE</u>	<u>WORK ORDER #</u>
<b>LCS Lot-Sample#:</b> E1C100000-112 <b>Prep Batch #....:</b> 1069112							
Antimony	50.0	50.7	mg/kg	101	SW846 6010B	03/10-03/13/01	DW8JG1AU
				Dilution Factor: 1			
				Analysis Time...: 17:48	Analyst ID.....: 003119	Instrument ID...: M01	
Arsenic	200	197	mg/kg	98	SW846 6010B	03/10-03/13/01	DW8JG1AV
				Dilution Factor: 1			
				Analysis Time...: 17:48	Analyst ID.....: 003119	Instrument ID...: M01	
Barium	200	208	mg/kg	104	SW846 6010B	03/10-03/13/01	DW8JG1AW
				Dilution Factor: 1			
				Analysis Time...: 17:48	Analyst ID.....: 003119	Instrument ID...: M01	
Beryllium	5.00	5.59	mg/kg	112	SW846 6010B	03/10-03/13/01	DW8JG1AX
				Dilution Factor: 1			
				Analysis Time...: 17:48	Analyst ID.....: 003119	Instrument ID...: M01	
Cadmium	5.00	5.31	mg/kg	106	SW846 6010B	03/10-03/13/01	DW8JG1AO
				Dilution Factor: 1			
				Analysis Time...: 17:48	Analyst ID.....: 003119	Instrument ID...: M01	
Cobalt	50.0	54.3	mg/kg	109	SW846 6010B	03/10-03/13/01	DW8JG1A1
				Dilution Factor: 1			
				Analysis Time...: 17:48	Analyst ID.....: 003119	Instrument ID...: M01	
Copper	25.0	25.9	mg/kg	104	SW846 6010B	03/10-03/13/01	DW8JG1A2
				Dilution Factor: 1			
				Analysis Time...: 17:48	Analyst ID.....: 003119	Instrument ID...: M01	
Lead	50.0	50.6	mg/kg	101	SW846 6010B	03/10-03/13/01	DW8JG1A3
				Dilution Factor: 1			
				Analysis Time...: 17:48	Analyst ID.....: 003119	Instrument ID...: M01	
Molybdenum	100	105	mg/kg	105	SW846 6010B	03/10-03/13/01	DW8JG1A4
				Dilution Factor: 1			
				Analysis Time...: 17:48	Analyst ID.....: 003119	Instrument ID...: M01	
Nickel	50.0	52.7	mg/kg	105	SW846 6010B	03/10-03/13/01	DW8JG1A5
				Dilution Factor: 1			
				Analysis Time...: 17:48	Analyst ID.....: 003119	Instrument ID...: M01	

(Continued on next page)

**000055**

**LABORATORY CONTROL SAMPLE DATA REPORT**

**TOTAL Metals**

**Client Lot #....:** E1C090309

**Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	PREPARATION- ANALYSIS DATE	WORK ORDER #
Selenium	200	187	mg/kg	93	SW846 6010B	03/10-03/13/01 DW8JG1A6
			Dilution Factor: 1			
			Analysis Time...: 17:48		Analyst ID.....: 003119	Instrument ID...: M01
Silver	5.00	5.08	mg/kg	102	SW846 6010B	03/10-03/13/01 DW8JG1A7
			Dilution Factor: 1			
			Analysis Time...: 17:48		Analyst ID.....: 003119	Instrument ID...: M01
Thallium	200	207	mg/kg	103	SW846 6010B	03/10-03/13/01 DW8JG1A8
			Dilution Factor: 1			
			Analysis Time...: 17:48		Analyst ID.....: 003119	Instrument ID...: M01
Vanadium	50.0	53.0	mg/kg	106	SW846 6010B	03/10-03/13/01 DW8JG1A9
			Dilution Factor: 1			
			Analysis Time...: 17:48		Analyst ID.....: 003119	Instrument ID...: M01
Zinc	50.0	52.8	mg/kg	106	SW846 6010B	03/10-03/13/01 DW8JG1CA
			Dilution Factor: 1			
			Analysis Time...: 17:48		Analyst ID.....: 003119	Instrument ID...: M01
Chromium	20.0	22.0	mg/kg	110	SW846 6010B	03/10-03/13/01 DW8JG1CC
			Dilution Factor: 1			
			Analysis Time...: 17:48		Analyst ID.....: 003119	Instrument ID...: M01
Aluminum	200	191	mg/kg	95	SW846 6010B	03/10-03/13/01 DW8JG1CE
			Dilution Factor: 1			
			Analysis Time...: 17:48		Analyst ID.....: 003119	Instrument ID...: M01
LCS Lot-Sample#:	E1C100000-113	Prep Batch #....:	1069113			
Mercury	0.833	0.832	mg/kg	100	SW846 7471A	03/13/01 DW8JM1AC
			Dilution Factor: 1			
			Analysis Time...: 15:10		Analyst ID.....: 021088	Instrument ID...: M04

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

**000056**

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #....: E1C090309      Work Order #....: DW9T51AC      Matrix.....: SOLID  
LCS Lot-Sample#: E1C120000-498  
Prep Date.....: 03/12/01      Analysis Date...: 03/14/01  
Prep Batch #:....: 1071498      Analysis Time...: 13:41  
Dilution Factor: 1      Instrument ID...: G03  
Analyst ID.....: 356074

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>
TPH (as Diesel)	91	(60 - 130)	SW846 8015B
<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	
Benzo (a) pyrene	101	(60 - 130)	

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

000057

BOE-C6-0232239

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

## GC/MS Volatiles

**Client Lot #....:** E1C090309      **Work Order #....:** DXAPJ1AC      **Matrix.....:** SOLID  
**LCS Lot-Sample#:** E1C130000-350  
**Prep Date.....:** 03/12/01      **Analysis Date...:** 03/12/01  
**Prep Batch #....:** 1072350      **Analysis Time...:** 12:41  
**Dilution Factor:** 1      **Instrument ID...:** MSG  
**Analyst ID.....:** 999998

<u>PARAMETER</u>	<u>PERCENT</u>	<u>RECOVERY</u>	<u>METHOD</u>
	<u>RECOVERY</u>	<u>LIMITS</u>	
1,1-Dichloroethene	101	(60 - 150)	SW846 8260B
Benzene	86	(70 - 140)	SW846 8260B
Trichloroethene	103	(70 - 130)	SW846 8260B
Toluene	96	(70 - 130)	SW846 8260B
Chlorobenzene	98	(70 - 130)	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>	<u>METHOD</u>
	<u>RECOVERY</u>	<u>LIMITS</u>	
Bromofluorobenzene	100	(70 - 130)	
1,2-Dichloroethane-d4	84	(60 - 140)	
Toluene-d8	107	(70 - 130)	

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

000058

BOE-C6-0232240

**LABORATORY CONTROL SAMPLE EVALUATION REPORT**

**GC Volatiles**

Client Lot #....: E1C090309      Work Order #....: DXAXR1AC      Matrix.....: SOLID  
LCS Lot-Sample#: E1C130000-404  
Prep Date.....: 03/12/01      Analysis Date...: 03/12/01  
Prep Batch #:....: 1072404      Analysis Time...: 11:48  
Dilution Factor: 1      Instrument ID...: G16  
Analyst ID.....: 001464

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
<b>TPH (as Gasoline)</b>	<b>106</b>	(80 - 140)	<b>SW846 8015B</b>
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS	
a,a,a-Trifluorotoluene (TFT)	113	(60 - 130)	

**NOTE(S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

**000059**

BOE-C6-0232241

**LABORATORY CONTROL SAMPLE EVALUATION REPORT**

**TOTAL Metals**

**Client Lot #....:** E1C090309

**Matrix.....:** SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION-</u>	<u>ANALYSIS DATE</u>	<u>WORK ORDER #</u>
LCS Lot-Sample#:	E1C100000-112	Prep Batch #....:	1069112			
Antimony	101	(75 - 115)	SW846 6010B		03/10-03/13/01	DW8JG1AU
		Dilution Factor:	1			
		Analysis Time...:	17:48	Analyst ID.....:	003119	Instrument ID...: M01
Arsenic	98	(75 - 115)	SW846 6010B		03/10-03/13/01	DW8JG1AV
		Dilution Factor:	1			
		Analysis Time...:	17:48	Analyst ID.....:	003119	Instrument ID...: M01
Barium	104	(80 - 120)	SW846 6010B		03/10-03/13/01	DW8JG1AW
		Dilution Factor:	1			
		Analysis Time...:	17:48	Analyst ID.....:	003119	Instrument ID...: M01
Beryllium	112	(80 - 120)	SW846 6010B		03/10-03/13/01	DW8JG1AX
		Dilution Factor:	1			
		Analysis Time...:	17:48	Analyst ID.....:	003119	Instrument ID...: M01
Cadmium	106	(80 - 120)	SW846 6010B		03/10-03/13/01	DW8JG1A0
		Dilution Factor:	1			
		Analysis Time...:	17:48	Analyst ID.....:	003119	Instrument ID...: M01
Cobalt	109	(80 - 120)	SW846 6010B		03/10-03/13/01	DW8JG1A1
		Dilution Factor:	1			
		Analysis Time...:	17:48	Analyst ID.....:	003119	Instrument ID...: M01
Copper	104	(80 - 120)	SW846 6010B		03/10-03/13/01	DW8JG1A2
		Dilution Factor:	1			
		Analysis Time...:	17:48	Analyst ID.....:	003119	Instrument ID...: M01
Lead	101	(80 - 120)	SW846 6010B		03/10-03/13/01	DW8JG1A3
		Dilution Factor:	1			
		Analysis Time...:	17:48	Analyst ID.....:	003119	Instrument ID...: M01
Molybdenum	105	(80 - 120)	SW846 6010B		03/10-03/13/01	DW8JG1A4
		Dilution Factor:	1			
		Analysis Time...:	17:48	Analyst ID.....:	003119	Instrument ID...: M01
Nickel	105	(80 - 120)	SW846 6010B		03/10-03/13/01	DW8JG1A5
		Dilution Factor:	1			
		Analysis Time...:	17:48	Analyst ID.....:	003119	Instrument ID...: M01

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**000060**

BOE-C6-0232242

**LABORATORY CONTROL SAMPLE EVALUATION REPORT**

**TOTAL Metals**

**Client Lot #....:** E1C090309

**Matrix.....:** SOLID

<b>PARAMETER</b>	<b>PERCENT RECOVERY</b>	<b>RECOVERY LIMITS</b>	<b>METHOD</b>	<b>PREPARATION-</b>	
				<b>ANALYSIS DATE</b>	<b>WORK ORDER #</b>
Selenium	93	(70 - 115)	SW846 6010B	03/10-03/13/01	DW8JG1A6
		Dilution Factor: 1			
		Analysis Time...: 17:48		Analyst ID.....: 003119	Instrument ID...: M01
Silver	102	(80 - 120)	SW846 6010B	03/10-03/13/01	DW8JG1A7
		Dilution Factor: 1			
		Analysis Time...: 17:48		Analyst ID.....: 003119	Instrument ID...: M01
Thallium	103	(75 - 120)	SW846 6010B	03/10-03/13/01	DW8JG1A8
		Dilution Factor: 1			
		Analysis Time...: 17:48		Analyst ID.....: 003119	Instrument ID...: M01
Vanadium	106	(80 - 120)	SW846 6010B	03/10-03/13/01	DW8JG1A9
		Dilution Factor: 1			
		Analysis Time...: 17:48		Analyst ID.....: 003119	Instrument ID...: M01
Zinc	106	(80 - 120)	SW846 6010B	03/10-03/13/01	DW8JG1CA
		Dilution Factor: 1			
		Analysis Time...: 17:48		Analyst ID.....: 003119	Instrument ID...: M01
Chromium	110	(85 - 120)	SW846 6010B	03/10-03/13/01	DW8JG1CC
		Dilution Factor: 1			
		Analysis Time...: 17:48		Analyst ID.....: 003119	Instrument ID...: M01
Aluminum	95	(80 - 120)	SW846 6010B	03/10-03/13/01	DW8JG1CE
		Dilution Factor: 1			
		Analysis Time...: 17:48		Analyst ID.....: 003119	Instrument ID...: M01
<b>LCS Lot-Sample#:</b>	E1C100000-113	<b>Prep Batch #....:</b>	1069113		
Mercury	100	(85 - 115)	SW846 7471A	03/13/01	DW8JM1AC
		Dilution Factor: 1			
		Analysis Time...: 15:10		Analyst ID.....: 021088	Instrument ID...: M04

**NOTE(S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

**000061**

BOE-C6-0232243

**MATRIX SPIKE SAMPLE DATA REPORT**

**GC/MS Volatiles**

Client Lot #....: E1C090309      Work Order #....: DW5RK1AE-MS      Matrix.....: SOLID  
 MS Lot-Sample #: E1C080299-018                                    DW5RK1AF-MSD  
 Date Sampled....: 03/07/01 15:10 Date Received...: 03/08/01 17:20 MS Run #.....: 1072160  
 Prep Date.....: 03/12/01 Analysis Date...: 03/12/01  
 Prep Batch #....: 1072350 Analysis Time...: 15:03  
 Dilution Factor: 1 Analyst ID.....: 999998      Instrument ID...: MSG

<u>PARAMETER</u>	SAMPLE	SPIKE	MEASRD	PERCENT			
	AMOUNT	AMT	AMOUNT	UNITS	RECOVERY	RPD	METHOD
1,1-Dichloroethene	ND	50.0	46.8	ug/kg	94		SW846 8260B
	ND	50.0	51.2	ug/kg	102	9.0	SW846 8260B
Benzene	ND	50.0	43.9	ug/kg	88		SW846 8260B
	ND	50.0	48.1	ug/kg	96	9.0	SW846 8260B
Trichloroethene	ND	50.0	46.3	ug/kg	93		SW846 8260B
	ND	50.0	49.0	ug/kg	98	5.6	SW846 8260B
Toluene	ND	50.0	42.6	ug/kg	85		SW846 8260B
	ND	50.0	44.8	ug/kg	90	4.9	SW846 8260B
Chlorobenzene	ND	50.0	43.8	ug/kg	88		SW846 8260B
	ND	50.0	45.8	ug/kg	92	4.3	SW846 8260B

<u>SURROGATE</u>	PERCENT		RECOVERY
	RECOVERY	LIMITS	
Bromofluorobenzene	98	(70 - 130)	
	97	(70 - 130)	
1,2-Dichloroethane-d4	95	(60 - 140)	
	98	(60 - 140)	
Toluene-d8	107	(70 - 130)	
	106	(70 - 130)	

**NOTE(S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

**MATRIX SPIKE SAMPLE DATA REPORT**

**TOTAL Metals**

**Client Lot #....:** E1C090309

**Matrix.....:** SOLID

**Date Sampled....:** 03/09/01

**Date Received...:** 03/09/01 11:05

PARAMETER	SAMPLE	SPIKE	MEASURED	PERCNT			PREPARATION-	WORK
	AMOUNT	AMT	AMOUNT	UNITS	RECVRY	RPD		

**MS Lot-Sample #:** E1C090238-004 **Prep Batch #....:** 1069112

**Aluminum**

5590	200	6040	NC	mg/kg			SW846	6010B	03/10-03/13/01 DW6501EN
5590	200	5690	NC	mg/kg			SW846	6010B	03/10-03/13/01 DW6501EP
Dilution Factor: 1									
					Analysis Time...:	19:50	Instrument ID...:	M01	Analyst ID.....: 003119
					MS Run #.....:	1072234			

**Antimony**

0.35	50.0	41.5		mg/kg	82		SW846	6010B	03/10-03/13/01 DW6501D9
0.35	50.0	41.4		mg/kg	82	0.39	SW846	6010B	03/10-03/13/01 DW6501EA
Dilution Factor: 1									
					Analysis Time...:	19:50	Instrument ID...:	M01	Analyst ID.....: 003119
					MS Run #.....:	1072234			

**Arsenic**

0.82	200	190		mg/kg	95		SW846	6010B	03/10-03/13/01 DW6501DT
0.82	200	189		mg/kg	94	0.51	SW846	6010B	03/10-03/13/01 DW6501DU
Dilution Factor: 1									
					Analysis Time...:	19:50	Instrument ID...:	M01	Analyst ID.....: 003119
					MS Run #.....:	1072234			

**Barium**

75.5	200	274		mg/kg	100		SW846	6010B	03/10-03/13/01 DW6501ER
75.5	200	268		mg/kg	96	2.3	SW846	6010B	03/10-03/13/01 DW6501ET
Dilution Factor: 1									
					Analysis Time...:	19:50	Instrument ID...:	M01	Analyst ID.....: 003119
					MS Run #.....:	1072234			

**Beryllium**

0.64	5.00	6.04		mg/kg	108		SW846	6010B	03/10-03/13/01 DW6501DV
0.64	5.00	6.00		mg/kg	107	0.53	SW846	6010B	03/10-03/13/01 DW6501DW
Dilution Factor: 1									
					Analysis Time...:	19:50	Instrument ID...:	M01	Analyst ID.....: 003119
					MS Run #.....:	1072234			

**Cadmium**

0.25	5.00	5.16		mg/kg	98		SW846	6010B	03/10-03/13/01 DW6501DX
0.25	5.00	5.20		mg/kg	99	0.61	SW846	6010B	03/10-03/13/01 DW6501DO
Dilution Factor: 1									
					Analysis Time...:	19:50	Instrument ID...:	M01	Analyst ID.....: 003119
					MS Run #.....:	1072234			

(Continued on next page)

**000063**

**MATRIX SPIKE SAMPLE DATA REPORT**

**TOTAL Metals**

Client Lot #....: E1C090309

Matrix.....: SOLID

Date Sampled...: 03/09/01

Date Received..: 03/09/01 11:05

PARAMETER	SAMPLE	SPIKE	MEASURED	UNITS	PERCNT			PREPARATION-	WORK
	AMOUNT	AMT	AMOUNT		RECVRY	RPD	METHOD		
<b>Chromium</b>									
	9.2	20.0	29.9	mg/kg	104		SW846 6010B	03/10-03/13/01	DW6501D1
	9.2	20.0	30.2	mg/kg	105	0.69	SW846 6010B	03/10-03/13/01	DW6501D2
	Dilution Factor: 1								
	Analysis Time...: 19:50								
	Instrument ID...: M01								
	MS Run #.....: 1072234								
<b>Cobalt</b>									
	0.42	50.0	52.0	mg/kg	103		SW846 6010B	03/10-03/13/01	DW6501EV
	0.42	50.0	51.9	mg/kg	103	0.17	SW846 6010B	03/10-03/13/01	DW6501EW
	Dilution Factor: 1								
	Analysis Time...: 19:50								
	Instrument ID...: M01								
	Analyst ID.....: 003119								
<b>Copper</b>									
	166	25.0	196	mg/kg	119		SW846 6010B	03/10-03/13/01	DW6501D3
	166	25.0	183 N	mg/kg	70	6.5	SW846 6010B	03/10-03/13/01	DW6501D4
	Dilution Factor: 1								
	Analysis Time...: 19:50								
	Instrument ID...: M01								
	Analyst ID.....: 003119								
<b>Lead</b>									
	9.3	50.0	56.4	mg/kg	94		SW846 6010B	03/10-03/13/01	DW6501D7
	9.3	50.0	56.5	mg/kg	94	0.02	SW846 6010B	03/10-03/13/01	DW6501D8
	Dilution Factor: 1								
	Analysis Time...: 19:50								
	Instrument ID...: M01								
	Analyst ID.....: 003119								
<b>Molybdenum</b>									
	1.9	100	102	mg/kg	100		SW846 6010B	03/10-03/13/01	DW6501E0
	1.9	100	101	mg/kg	100	0.15	SW846 6010B	03/10-03/13/01	DW6501E1
	Dilution Factor: 1								
	Analysis Time...: 19:50								
	Instrument ID...: M01								
	Analyst ID.....: 003119								
<b>Nickel</b>									
	2.6	50.0	52.4	mg/kg	100		SW846 6010B	03/10-03/13/01	DW6501D5
	2.6	50.0	52.5	mg/kg	100	0.04	SW846 6010B	03/10-03/13/01	DW6501D6
	Dilution Factor: 1								
	Analysis Time...: 19:50								
	Instrument ID...: M01								
	Analyst ID.....: 003119								
<b>Selenium</b>									
	1.2	200	182	mg/kg	90		SW846 6010B	03/10-03/13/01	DW6501EC
	1.2	200	182	mg/kg	90	0.18	SW846 6010B	03/10-03/13/01	DW6501ED
	Dilution Factor: 1								
	Analysis Time...: 19:50								
	Instrument ID...: M01								
	Analyst ID.....: 003119								

**000064**

BOE-C6-0232246

**MATRIX SPIKE SAMPLE DATA REPORT**

**TOTAL Metals**

**Client Lot #....:** E1C090309

**Matrix.....:** SOLID

**Date Sampled...:** 03/09/01

**Date Received...:** 03/09/01 11:05

PARAMETER	SAMPLE	SPIKE	MEASURED	UNITS	PERCNT		METHOD	PREPARATION-		WORK ORDER #										
	AMOUNT	AMT	AMOUNT		RECVRY	RPD		ANALYSIS DATE												
<b>Silver</b>																				
	1.4	5.00	6.09	mg/kg	94		SW846 6010B	03/10-03/13/01	DW6501DQ											
	1.4	5.00	6.00	mg/kg	92	1.4	SW846 6010B	03/10-03/13/01	DW6501DR											
	Dilution Factor: 1																			
	Analysis Time...: 19:50																			
	Instrument ID...: M01																			
	MS Run #.....: 1072234																			
<b>Thallium</b>																				
	ND	200	197	mg/kg	98		SW846 6010B	03/10-03/13/01	DW6501EE											
	ND	200	196	mg/kg	98	0.64	SW846 6010B	03/10-03/13/01	DW6501EF											
	Dilution Factor: 1																			
	Analysis Time...: 19:50																			
	Instrument ID...: M01																			
	Analyst ID.....: 003119																			
<b>Vanadium</b>																				
	5.6	50.0	56.0	mg/kg	101		SW846 6010B	03/10-03/13/01	DW6501EK											
	5.6	50.0	55.5	mg/kg	100	0.88	SW846 6010B	03/10-03/13/01	DW6501EL											
	Dilution Factor: 1																			
	Analysis Time...: 19:50																			
	Instrument ID...: M01																			
	Analyst ID.....: 003119																			
<b>Zinc</b>																				
	156	50.0	202	mg/kg	92		SW846 6010B	03/10-03/13/01	DW6501EG											
	156	50.0	195 N	mg/kg	76	3.9	SW846 6010B	03/10-03/13/01	DW6501EH											
	Dilution Factor: 1																			
	Analysis Time...: 19:50																			
	Instrument ID...: M01																			
	Analyst ID.....: 003119																			
<b>MS Lot-Sample #:</b> E1C090238-004 <b>Prep Batch #....:</b> 1069113																				
<b>Mercury</b>																				
	1.4	0.167	0.490	NC mg/kg			SW846 7471A	03/13/01	DW6501C4											
	1.4	0.167	0.430	NC mg/kg			SW846 7471A	03/13/01	DW6501C5											
	Dilution Factor: 1																			
	Analysis Time...: 15:33																			
	Instrument ID...: M04																			
	Analyst ID.....: 021088																			
	MS Run #.....: 1069016																			

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

NC The recovery and/or RPD were not calculated.

**000065**

**BOE-C6-0232247**

MATRIX SPIKE SAMPLE DATA REPORT

GC Volatiles

Client Lot #....: E1C090309      Work Order #....: DW7TV1A2-MS      Matrix.....: SOLID  
MS Lot-Sample #: E1C090309-001      DW7TV1A3-MSD  
Date Sampled...: 03/09/01 10:00 Date Received...: 03/09/01 15:35 MS Run #.....: 1072196  
Prep Date.....: 03/12/01      Analysis Date...: 03/12/01  
Prep Batch #....: 1072404      Analysis Time...: 16:13  
Dilution Factor: 1      Analyst ID.....: 001464      Instrument ID..: G16

PARAMETER	SAMPLE	SPIKE	MEASRD	PERCENT			
	AMOUNT	AMT	AMOUNT	UNITS	RECOVERY	RPD	METHOD
<b>TPH (as Gasoline)</b>	ND	5.00	4.95	mg/kg	99		SW846 8015B
	ND	5.00	4.96	mg/kg	99	0.23	SW846 8015B

SURROGATE	PERCENT			RECOVERY
	RECOVERY			LIMITS
a,a,a-Trifluorotoluene (TFT)	110			(60 - 130)
	111			(60 - 130)

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

000066

BOE-C6-0232248

## MATRIX SPIKE SAMPLE DATA REPORT

## GC Semivolatiles

PARAMETER	SAMPLE	SPIKE	MEASRD	PERCENT			
	AMOUNT	AMT	AMOUNT	UNITS	RECOVERY	RPD	METHOD
TPH (as Diesel)	ND	250	176	mg/kg	70		SW846 8015B
	ND	250	218	mg/kg	87	21	SW846 8015B

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
Benzo (a) pyrene	76	(60 - 130)
	95	(60 - 130)

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

**Bold print** denotes control parameters

000067

**MATRIX SPIKE SAMPLE EVALUATION REPORT**

**GC/MS Volatiles**

**Client Lot #....:** E1C090309      **Work Order #....:** DW5RK1AE-MS      **Matrix.....:** SOLID  
**MS Lot-Sample #:** E1C080299-018      **:** DW5RK1AF-MSD  
**Date Sampled....:** 03/07/01 15:10      **Date Received...:** 03/08/01 17:20      **MS Run #.....:** 1072160  
**Prep Date.....:** 03/12/01      **Analysis Date...:** 03/12/01  
**Prep Batch #....:** 1072350      **Analysis Time...:** 15:03  
**Dilution Factor:** 1      **Analyst ID.....:** 999998      **Instrument ID..:** MSG

<u>PARAMETER</u>	<u>PERCENT</u>	<u>RECOVERY</u>	<u>RPD</u>	<u>LIMITS</u>	<u>METHOD</u>
<b>1,1-Dichloroethene</b>	<b>94</b>	(60 - 150)			<b>SW846 8260B</b>
	<b>102</b>	(60 - 150)	<b>9.0</b>	(0-30)	<b>SW846 8260B</b>
<b>Benzene</b>	<b>88</b>	(70 - 140)			<b>SW846 8260B</b>
	<b>96</b>	(70 - 140)	<b>9.0</b>	(0-30)	<b>SW846 8260B</b>
<b>Trichloroethene</b>	<b>93</b>	(70 - 130)			<b>SW846 8260B</b>
	<b>98</b>	(70 - 130)	<b>5.6</b>	(0-30)	<b>SW846 8260B</b>
<b>Toluene</b>	<b>85</b>	(70 - 130)			<b>SW846 8260B</b>
	<b>90</b>	(70 - 130)	<b>4.9</b>	(0-30)	<b>SW846 8260B</b>
<b>Chlorobenzene</b>	<b>88</b>	(70 - 130)			<b>SW846 8260B</b>
	<b>92</b>	(70 - 130)	<b>4.3</b>	(0-30)	<b>SW846 8260B</b>
<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>		<u>LIMITS</u>	
<b>Bromofluorobenzene</b>	<b>98</b>			(70 - 130)	
	<b>97</b>			(70 - 130)	
<b>1,2-Dichloroethane-d4</b>	<b>95</b>			(60 - 140)	
	<b>98</b>			(60 - 140)	
<b>Toluene-d8</b>	<b>107</b>			(70 - 130)	
	<b>106</b>			(70 - 130)	

**NOTE(S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

**000068**

BOE-C6-0232250

**MATRIX SPIKE SAMPLE EVALUATION REPORT**

**TOTAL Metals**

**Client Lot #....:** E1C090309

**Matrix.....:** SOLID

**Date Sampled....:** 03/09/01

**Date Received...:** 03/09/01 11:05

PARAMETER	PERCENT	RECOVERY	RPD			PREPARATION-	WORK
	RECOVERY	LIMITS	RPD	LIMITS	METHOD	ANALYSIS DATE	ORDER #
<b>MS Lot-Sample #:</b> E1C090238-004 <b>Prep Batch #....:</b> 1069112							
Aluminum	NC	(80 - 120)		SW846	6010B	03/10-03/13/01	DW6501EN
	NC	(80 - 120)	(0-25)	SW846	6010B	03/10-03/13/01	DW6501EP
			Dilution Factor: 1				
			Analysis Time...: 19:50		Instrument ID...: M01		Analyst ID.....: 003119
			MS Run #.....: 1072234				
Antimony	82	(75 - 115)		SW846	6010B	03/10-03/13/01	DW6501D9
	82	(75 - 115) 0.39	(0-25)	SW846	6010B	03/10-03/13/01	DW6501EA
			Dilution Factor: 1				
			Analysis Time...: 19:50		Instrument ID...: M01		Analyst ID.....: 003119
			MS Run #.....: 1072234				
Arsenic	95	(75 - 115)		SW846	6010B	03/10-03/13/01	DW6501DT
	94	(75 - 115) 0.51	(0-25)	SW846	6010B	03/10-03/13/01	DW6501DU
			Dilution Factor: 1				
			Analysis Time...: 19:50		Instrument ID...: M01		Analyst ID.....: 003119
			MS Run #.....: 1072234				
Barium	100	(80 - 120)		SW846	6010B	03/10-03/13/01	DW6501ER
	96	(80 - 120) 2.3	(0-25)	SW846	6010B	03/10-03/13/01	DW6501ET
			Dilution Factor: 1				
			Analysis Time...: 19:50		Instrument ID...: M01		Analyst ID.....: 003119
			MS Run #.....: 1072234				
Beryllium	108	(80 - 120)		SW846	6010B	03/10-03/13/01	DW6501DV
	107	(80 - 120) 0.53	(0-25)	SW846	6010B	03/10-03/13/01	DW6501DW
			Dilution Factor: 1				
			Analysis Time...: 19:50		Instrument ID...: M01		Analyst ID.....: 003119
			MS Run #.....: 1072234				
Cadmium	98	(80 - 120)		SW846	6010B	03/10-03/13/01	DW6501DX
	99	(80 - 120) 0.61	(0-25)	SW846	6010B	03/10-03/13/01	DW6501D0
			Dilution Factor: 1				
			Analysis Time...: 19:50		Instrument ID...: M01		Analyst ID.....: 003119
			MS Run #.....: 1072234				
Chromium	104	(85 - 120)		SW846	6010B	03/10-03/13/01	DW6501D1
	105	(85 - 120) 0.69	(0-25)	SW846	6010B	03/10-03/13/01	DW6501D2
			Dilution Factor: 1				
			Analysis Time...: 19:50		Instrument ID...: M01		Analyst ID.....: 003119
			MS Run #.....: 1072234				

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**000069**

**BOE-C6-0232251**

**MATRIX SPIKE SAMPLE EVALUATION REPORT**

**TOTAL Metals**

<b>Client Lot #....:</b>	<b>E1C090309</b>					<b>Matrix.....:</b>	<b>SOLID</b>
<b>Date Sampled....:</b>	<b>03/09/01</b>					<b>Date Received...:</b>	<b>03/09/01 11:05</b>
<b>PARAMETER</b>	<b>PERCENT</b>	<b>RECOVERY</b>	<b>RPD</b>	<b>RPD</b>	<b>LIMITS</b>	<b>PREPARATION-ANALYSIS DATE</b>	<b>WORK ORDER #</b>
Cobalt		RECOVERY	LIMITS	RPD	LIMITS	METHOD	
	103		(80 - 120)			SW846 6010B	03/10-03/13/01 DW6501EV
	103		(80 - 120)	0.17	(0-25)	SW846 6010B	03/10-03/13/01 DW6501EW
			Dilution Factor: 1				
			Analysis Time...: 19:50			Instrument ID...: M01	Analyst ID.....: 003119
			MS Run #.....: 1072234				
Copper	119	(80 - 120)				SW846 6010B	03/10-03/13/01 DW6501D3
	70 N	(80 - 120)	6.5	(0-25)		SW846 6010B	03/10-03/13/01 DW6501D4
		Dilution Factor: 1					
		Analysis Time...: 19:50				Instrument ID...: M01	Analyst ID.....: 003119
		MS Run #.....: 1072234					
Lead	94	(80 - 120)				SW846 6010B	03/10-03/13/01 DW6501D7
	94	(80 - 120)	0.02	(0-25)		SW846 6010B	03/10-03/13/01 DW6501D8
		Dilution Factor: 1					
		Analysis Time...: 19:50				Instrument ID...: M01	Analyst ID.....: 003119
		MS Run #.....: 1072234					
Molybdenum	100	(80 - 120)				SW846 6010B	03/10-03/13/01 DW6501E0
	100	(80 - 120)	0.15	(0-25)		SW846 6010B	03/10-03/13/01 DW6501E1
		Dilution Factor: 1					
		Analysis Time...: 19:50				Instrument ID...: M01	Analyst ID.....: 003119
		MS Run #.....: 1072234					
Nickel	100	(80 - 120)				SW846 6010B	03/10-03/13/01 DW6501D5
	100	(80 - 120)	0.04	(0-25)		SW846 6010B	03/10-03/13/01 DW6501D6
		Dilution Factor: 1					
		Analysis Time...: 19:50				Instrument ID...: M01	Analyst ID.....: 003119
		MS Run #.....: 1072234					
Selenium	90	(70 - 115)				SW846 6010B	03/10-03/13/01 DW6501EC
	90	(70 - 115)	0.18	(0-25)		SW846 6010B	03/10-03/13/01 DW6501ED
		Dilution Factor: 1					
		Analysis Time...: 19:50				Instrument ID...: M01	Analyst ID.....: 003119
		MS Run #.....: 1072234					
Silver	94	(80 - 120)				SW846 6010B	03/10-03/13/01 DW6501DQ
	92	(80 - 120)	1.4	(0-25)		SW846 6010B	03/10-03/13/01 DW6501DR
		Dilution Factor: 1					
		Analysis Time...: 19:50				Instrument ID...: M01	Analyst ID.....: 003119
		MS Run #.....: 1072234					
Thallium	98	(75 - 120)				SW846 6010B	03/10-03/13/01 DW6501EE
	98	(75 - 120)	0.64	(0-25)		SW846 6010B	03/10-03/13/01 DW6501EF
		Dilution Factor: 1					
		Analysis Time...: 19:50				Instrument ID...: M01	Analyst ID.....: 003119
		MS Run #.....: 1072234					

(Continued on next page)

**000070**

**MATRIX SPIKE SAMPLE EVALUATION REPORT**

**TOTAL Metals**

**Client Lot #....:** E1C090309

**Date Sampled....:** 03/09/01

**Date Received..:** 03/09/01 11:05

**Matrix.....:** SOLID

<u>PARAMETER</u>	<u>PERCENT</u>	<u>RECOVERY</u>	<u>RPD</u>			<u>PREPARATION-</u>	<u>WORK</u>			
				<u>RECOVERY</u>	<u>LIMITS</u>	<u>RPD</u>	<u>LIMITS</u>	<u>METHOD</u>	<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Vanadium	101	(80 - 120)						SW846 6010B	03/10-03/13/01	DW6501EK
	100	(80 - 120)	0.88	(0-25)				SW846 6010B	03/10-03/13/01	DW6501EL
		Dilution Factor: 1								
		Analysis Time...: 19:50						Instrument ID...: M01	Analyst ID.....: 003119	
		MS Run #.....: 1072234								
Zinc	92	(80 - 120)						SW846 6010B	03/10-03/13/01	DW6501EG
	76 N	(80 - 120)	3.9	(0-25)				SW846 6010B	03/10-03/13/01	DW6501EH
		Dilution Factor: 1								
		Analysis Time...: 19:50						Instrument ID...: M01	Analyst ID.....: 003119	
		MS Run #.....: 1072234								
<b>MS Lot-Sample #:</b> E1C090238-004 <b>Prep Batch #....:</b> 1069113										
Mercury	NC	(80 - 120)						SW846 7471A	03/13/01	DW6501C4
	NC	(80 - 120)		(0-20)				SW846 7471A	03/13/01	DW6501C5
		Dilution Factor: 1								
		Analysis Time...: 15:33						Instrument ID...: M04	Analyst ID.....: 021088	
		MS Run #.....: 1069016								

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

NC The recovery and/or RPD were not calculated.

**000071**

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #....: E1C090309      Work Order #....: DW7TV1A2-MS      Matrix.....: SOLID  
MS Lot-Sample #: E1C090309-001      DW7TV1A3-MSD  
Date Sampled....: 03/09/01 10:00 Date Received...: 03/09/01 15:35 MS Run #.....: 1072196  
Prep Date.....: 03/12/01      Analysis Date...: 03/12/01  
Prep Batch #....: 1072404      Analysis Time...: 16:13  
Dilution Factor: 1      Analyst ID.....: 001464      Instrument ID..: G16

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	LIMITS	METHOD
<b>TPH (as Gasoline)</b>	<b>99</b>	<b>(80 - 140)</b>			<b>SW846 8015B</b>
	<b>99</b>	<b>(80 - 140)</b>	<b>0.23</b>	<b>(0-40)</b>	<b>SW846 8015B</b>
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS			
a,a,a-Trifluorotoluene (TFT)	110			(60 - 130)	
	111			(60 - 130)	

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

000072

BOE-C6-0232254

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #....: E1C090309      Work Order #....: DW7181A2-MS      Matrix.....: SOLID  
MS Lot-Sample #: E1C090323-043      DW7181A3-MSD  
Date Sampled....: 03/09/01 14:30 Date Received...: 03/09/01 16:45 MS Run #.....: 1071274  
Prep Date.....: 03/12/01 Analysis Date...: 03/14/01  
Prep Batch #....: 1071498 Analysis Time...: 19:32  
Dilution Factor: 1 Analyst ID.....: 356074      Instrument ID...: G03

PARAMETER	PERCENT	RECOVERY	RPD	LIMITS	METHOD
	RECOVERY	LIMITS			
TPH (as Diesel)	70	(60 - 130)			SW846 8015B
	87	(60 - 130)	21	(0-35)	SW846 8015B

SURROGATE	PERCENT	RECOVERY	LIMITS
	RECOVERY	LIMITS	
Benzo (a) pyrene	76	(60 - 130)	
	95	(60 - 130)	

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

000073

# **Subcontracted**

# **Analysis**

**000074**



**Del Mar Analytical**

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1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046  
7277 Hayvenhurst, Suite B-12, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843  
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-9596 FAX (858) 505-9689  
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

## LABORATORY REPORT

Prepared For: STL Los Angeles  
1721 S. Grand Avenue  
Santa Ana, CA 92705

Attention: Diane Suzuki  
Project: E1C090309

Sampled: 03/09/01  
Received: 03/12/01  
Reported: 03/14/01

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**Del Mar Analytical, Colton**  
Clifton J. Kiser  
Project Manager

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**BOE-C6-0232257**



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1721 S. Grand Avenue  
Santa Ana, CA 92705  
Attention: Diane Suzuki

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228  
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046  
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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

Client Project ID: E1C090309

Report Number: CKC0083

Sampled:03/09/01  
Received:03/12/01

## POLYNUCLEAR AROMATIC HYDROCARBONS (EPA 8310)

Analyte	Method	Reporting Batch	Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
				ug/kg		ug/kg		
<b>Sample ID: CKC0083-01 (SOURCE-J-1-030901 - Soil)</b>								
Acenaphthene	EPA 8310	C1C1306	1000	ND	20	3/13/01	3/13/01	
Acenaphthylene	EPA 8310	C1C1306	1000	ND	20	3/13/01	3/13/01	
Anthracene	EPA 8310	C1C1306	40	ND	20	3/13/01	3/13/01	
Benzo(a)anthracene	EPA 8310	C1C1306	40	ND	20	3/13/01	3/13/01	
Benzo(a)pyrene	EPA 8310	C1C1306	40	ND	20	3/13/01	3/13/01	
Benzo(b)fluoranthene	EPA 8310	C1C1306	100	ND	20	3/13/01	3/13/01	
Benzo(g,h,i)perylene	EPA 8310	C1C1306	100	ND	20	3/13/01	3/13/01	
Benzo(k)fluoranthene	EPA 8310	C1C1306	40	ND	20	3/13/01	3/13/01	
Chrysene	EPA 8310	C1C1306	100	ND	20	3/13/01	3/13/01	
Dibenz(a,h)anthracene	EPA 8310	C1C1306	100	ND	20	3/13/01	3/13/01	
Fluoranthene	EPA 8310	C1C1306	100	ND	20	3/13/01	3/13/01	
Fluorene	EPA 8310	C1C1306	100	ND	20	3/13/01	3/13/01	
Indeno(1,2,3-cd)pyrene	EPA 8310	C1C1306	100	ND	20	3/13/01	3/13/01	
Naphthalene	EPA 8310	C1C1306	400	ND	20	3/13/01	3/13/01	
Phenanthrene	EPA 8310	C1C1306	100	ND	20	3/13/01	3/13/01	
Pyrene	EPA 8310	C1C1306	100	ND	20	3/13/01	3/13/01	
<i>Surrogate: 2-Methylanthracene (35-115%)</i>						76.1 %		
<b>Sample ID: CKC0083-02 (SOURCE-J-2-030901 - Soil)</b>								
Acenaphthene	EPA 8310	C1C1306	500	ND	10	3/13/01	3/13/01	
Acenaphthylene	EPA 8310	C1C1306	500	ND	10	3/13/01	3/13/01	
Anthracene	EPA 8310	C1C1306	20	ND	10	3/13/01	3/13/01	
Benzo(a)anthracene	EPA 8310	C1C1306	20	ND	10	3/13/01	3/13/01	
Benzo(a)pyrene	EPA 8310	C1C1306	20	ND	10	3/13/01	3/13/01	
Benzo(b)fluoranthene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
Benzo(g,h,i)perylene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
Benzo(k)fluoranthene	EPA 8310	C1C1306	20	ND	10	3/13/01	3/13/01	
Chrysene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
Dibenz(a,h)anthracene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
Fluoranthene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
Indeno(1,2,3-cd)pyrene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
Naphthalene	EPA 8310	C1C1306	200	ND	10	3/13/01	3/13/01	
Phenanthrene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
Pyrene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
<i>Surrogate: 2-Methylanthracene (35-115%)</i>						77.0 %		

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Clifton J. Kiser  
Project Manager

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BOE-C6-0232258



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 7277 Hayvenhurst, Suite B-12, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843  
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STL Los Angeles  
 1721 S. Grand Avenue  
 Santa Ana, CA 92705  
 Attention: Diane Suzuki

Client Project ID: E1C090309

Report Number: CKC0083

Sampled:03/09/01  
 Received:03/12/01

## POLYNUCLEAR AROMATIC HYDROCARBONS (EPA 8310)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
			ug/kg	ug/kg				
<b>Sample ID: CKC0083-03 (SOURCE-J-3-030901 - Soil)</b>								
Acenaphthene	EPA 8310	C1C1306	500	ND	10	3/13/01	3/13/01	
Acenaphthylene	EPA 8310	C1C1306	500	ND	10	3/13/01	3/13/01	
Anthracene	EPA 8310	C1C1306	20	ND	10	3/13/01	3/13/01	
Benzo(a)anthracene	EPA 8310	C1C1306	20	ND	10	3/13/01	3/13/01	
Benzo(a)pyrene	EPA 8310	C1C1306	20	ND	10	3/13/01	3/13/01	
Benzo(b)fluoranthene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
Benzo(g,h,i)perylene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
Benzo(k)fluoranthene	EPA 8310	C1C1306	20	ND	10	3/13/01	3/13/01	
Chrysene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
Dibenz(a,h)anthracene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
Fluoranthene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
Fluorene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
Indeno(1,2,3-cd)pyrene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
Naphthalene	EPA 8310	C1C1306	200	ND	10	3/13/01	3/13/01	
Phenanthrene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
Pyrene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
<i>Surrogate: 2-Methylanthracene (35-115%)</i>						99.4 %		
<b>Sample ID: CKC0083-04 (SOURCE-I-1-030901 - Soil)</b>								
Acenaphthene	EPA 8310	C1C1306	5000	ND	100	3/13/01	3/13/01	
Acenaphthylene	EPA 8310	C1C1306	5000	ND	100	3/13/01	3/13/01	
Anthracene	EPA 8310	C1C1306	200	ND	100	3/13/01	3/13/01	
Benzo(a)anthracene	EPA 8310	C1C1306	200	350	100	3/13/01	3/13/01	
Benzo(a)pyrene	EPA 8310	C1C1306	200	320	100	3/13/01	3/13/01	
Benzo(b)fluoranthene	EPA 8310	C1C1306	500	ND	100	3/13/01	3/13/01	
Benzo(g,h,i)perylene	EPA 8310	C1C1306	500	ND	100	3/13/01	3/13/01	
Benzo(k)fluoranthene	EPA 8310	C1C1306	200	ND	100	3/13/01	3/13/01	
Chrysene	EPA 8310	C1C1306	500	ND	100	3/13/01	3/13/01	
Dibenz(a,h)anthracene	EPA 8310	C1C1306	500	ND	100	3/13/01	3/13/01	
Fluoranthene	EPA 8310	C1C1306	500	1100	100	3/13/01	3/13/01	
Fluorene	EPA 8310	C1C1306	500	ND	100	3/13/01	3/13/01	
Indeno(1,2,3-cd)pyrene	EPA 8310	C1C1306	500	ND	100	3/13/01	3/13/01	
Naphthalene	EPA 8310	C1C1306	2000	ND	100	3/13/01	3/13/01	
Phenanthrene	EPA 8310	C1C1306	500	ND	100	3/13/01	3/13/01	
Pyrene	EPA 8310	C1C1306	500	520	100	3/13/01	3/13/01	
<i>Surrogate: 2-Methylanthracene (35-115%)</i>						815 %		ZZZZ4

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 Clifton J. Kiser  
 Project Manager

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BOE-C6-0232259



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Attention: Diane Suzuki

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228  
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046  
7277 Hayvenhurst, Suite B-12, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843  
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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

Client Project ID: E1C090309

Report Number: CKC0083

Sampled:03/09/01  
Received:03/12/01

## POLYNUCLEAR AROMATIC HYDROCARBONS (EPA 8310)

Analyte	Method	Reporting Batch	Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
				ug/kg		ug/kg		
<b>Sample ID: CKC0083-05 (SOURCE-I-2-030901 - Soil)</b>								
Acenaphthene	EPA 8310	C1C1306	50	ND	1	3/13/01	3/13/01	
Acenaphthylene	EPA 8310	C1C1306	50	ND	1	3/13/01	3/13/01	
Anthracene	EPA 8310	C1C1306	2.0	ND	1	3/13/01	3/13/01	
Benzo(a)anthracene	EPA 8310	C1C1306	2.0	ND	1	3/13/01	3/13/01	
Benzo(a)pyrene	EPA 8310	C1C1306	2.0	ND	1	3/13/01	3/13/01	
Benzo(b)fluoranthene	EPA 8310	C1C1306	5.0	ND	1	3/13/01	3/13/01	
Benzo(g,h,i)perylene	EPA 8310	C1C1306	5.0	ND	1	3/13/01	3/13/01	
Benzo(k)fluoranthene	EPA 8310	C1C1306	2.0	ND	1	3/13/01	3/13/01	
Chrysene	EPA 8310	C1C1306	5.0	ND	1	3/13/01	3/13/01	
Dibenz(a,h)anthracene	EPA 8310	C1C1306	5.0	ND	1	3/13/01	3/13/01	
Fluoranthene	EPA 8310	C1C1306	5.0	ND	1	3/13/01	3/13/01	
Fluorene	EPA 8310	C1C1306	5.0	ND	1	3/13/01	3/13/01	
Indeno(1,2,3-cd)pyrene	EPA 8310	C1C1306	5.0	ND	1	3/13/01	3/13/01	
Naphthalene	EPA 8310	C1C1306	20	ND	1	3/13/01	3/13/01	
Phenanthrene	EPA 8310	C1C1306	5.0	ND	1	3/13/01	3/13/01	
Pyrene	EPA 8310	C1C1306	5.0	ND	1	3/13/01	3/13/01	
Surrogate: 2-Methylanthracene (35-115%)						87.6 %		

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Project Manager

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Attention: Diane Suzuki

Client Project ID: E1C090309

Report Number: CKC0083

2852 Alton Ave., Irvine, CA 92606  
1014 E. Cooley Dr., Suite A, Colton, CA 92324  
7277 Hayvenhurst, Suite B-12, Van Nuys, CA 91406  
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123  
9830 South 51st St., Suite B-120, Phoenix, AZ 85044

(949) 261-1022 FAX (949) 261-1228  
(909) 370-4667 FAX (909) 370-1046  
(818) 779-1844 FAX (818) 779-1843  
(858) 505-9596 FAX (858) 505-9689  
(480) 785-0043 FAX (480) 785-0851

Sampled:03/09/01  
Received:03/12/01

### METHOD BLANK/QC DATA

### POLYNUCLEAR AROMATIC HYDROCARBONS (EPA 8310)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD	Data Limit Qualifiers
<u>Batch: C1C1306 Extracted: 03/13/01</u>								
<b>Blank Analyzed: 03/13/01 (C1C1306-BLK1)</b>								
Acenaphthene	ND	50	ug/kg					
Acenaphthylene	ND	50	ug/kg					
Anthracene	ND	2.0	ug/kg					
Benzo(a)anthracene	ND	2.0	ug/kg					
Benzo(a)pyrene	ND	2.0	ug/kg					
Benzo(b)fluoranthene	ND	5.0	ug/kg					
Benzo(g,h,i)perylene	ND	5.0	ug/kg					
Benzo(k)fluoranthene	ND	2.0	ug/kg					
Chrysene	ND	5.0	ug/kg					
Dibenz(a,h)anthracene	ND	5.0	ug/kg					
Fluoranthene	ND	5.0	ug/kg					
Fluorene	ND	5.0	ug/kg					
Indeno(1,2,3-cd)pyrene	ND	5.0	ug/kg					
Naphthalene	ND	20	ug/kg					
Phenanthrene	ND	5.0	ug/kg					
Pyrene	ND	5.0	ug/kg					
Surrogate: 2-Methylnanthracene	7.04		ug/kg	8.00		88.0	35-115	
<b>ECS Analyzed: 03/13/01 (C1C1306-BS1)</b>								
Acenaphthene	71.5	50	ug/kg	80.0		89.4	45-115	
Acenaphthylene	149	50	ug/kg	160		93.1	50-115	
Anthracene	7.25	2.0	ug/kg	8.00		90.6	55-115	
Benzo(a)anthracene	8.07	2.0	ug/kg	8.00		101	65-115	
Benzo(a)pyrene	7.33	2.0	ug/kg	8.00		91.6	55-115	
Benzo(b)fluoranthene	15.0	5.0	ug/kg	16.0		93.8	65-115	
Benzo(g,h,i)perylene	15.5	5.0	ug/kg	16.0		96.9	60-115	
Benzo(k)fluoranthene	7.23	2.0	ug/kg	8.00		90.4	65-115	
Chrysene	7.26	5.0	ug/kg	8.00		90.8	65-115	
Dibenz(a,h)anthracene	14.1	5.0	ug/kg	16.0		88.1	60-115	
Fluoranthene	15.2	5.0	ug/kg	16.0		95.0	65-115	
Fluorene	14.9	5.0	ug/kg	16.0		93.1	55-115	
Indeno(1,2,3-cd)pyrene	7.23	5.0	ug/kg	8.00		90.4	55-115	
Naphthalene	66.9	20	ug/kg	80.0		83.6	45-115	
Phenanthrene	7.19	5.0	ug/kg	8.00		89.9	55-120	
Pyrene	7.44	5.0	ug/kg	8.00		93.0	55-115	

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Clifton J. Kiser  
Project Manager

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BOE-C6-0232261



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 Attention: Diane Suzuki

Client Project ID: E1C090309

Report Number: CKC0083

Sampled:03/09/01  
 Received:03/12/01

## METHOD BLANK/QC DATA

## POLYNUCLEAR AROMATIC HYDROCARBONS (EPA 8310)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Data Qualifiers
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Batch: C1C1306 Extracted: 03/13/01

CS Analyzed: 03/13/01 (C1C1306-BS1)

Surrogate: 2-Methylnanthracene 7.27 ug/kg 8.00 90.9 35-115

Matrix Spike Analyzed: 03/13/01 (C1C1306-MS1)

Acenaphthene	67.5	50	ug/kg	80.0	ND	84.4	40-115	
Acenaphthylene	139	50	ug/kg	160	ND	86.9	35-130	
Anthracene	6.53	2.0	ug/kg	8.00	ND	79.3	40-115	
Benzo(a)anthracene	6.01	2.0	ug/kg	8.00	ND	75.1	45-130	
Benzo(a)pyrene	5.22	2.0	ug/kg	8.00	ND	65.2	50-115	
Benzo(b)fluoranthene	8.58	5.0	ug/kg	16.0	ND	53.6	40-130	
Benzo(g,h,i)perylene	5.32	5.0	ug/kg	16.0	ND	33.3	45-115	
Benzo(k)fluoranthene	3.49	2.0	ug/kg	8.00	ND	43.6	40-125	MX
Chrysene	5.74	5.0	ug/kg	8.00	ND	71.7	45-125	
Dibeno(a,h)anthracene	ND	5.0	ug/kg	16.0	ND	8.12	25-130	MX
Fluoranthene	19.7	5.0	ug/kg	16.0	ND	121	50-135	
Fluorene	13.9	5.0	ug/kg	16.0	ND	81.2	35-120	
Indeno(1,2,3-cd)pyrene	ND	5.0	ug/kg	8.00	ND	37.0	40-120	MX
Naphthalene	72.8	20	ug/kg	80.0	ND	84.5	30-115	
Phenanthrene	12.9	5.0	ug/kg	8.00	ND	161	30-160	MX
Pyrene	13.6	5.0	ug/kg	8.00	ND	170	20-165	MX
Surrogate: 2-Methylnanthracene	5.34		ug/kg	8.00		66.8	35-115	

Matrix Spike Dup Analyzed: 03/13/01 (C1C1306-MSD1)

Acenaphthene	68.6	50	ug/kg	80.0	ND	85.7	40-115	1.62	25
Acenaphthylene	141	50	ug/kg	160	ND	88.1	35-130	1.43	25
Anthracene	5.66	2.0	ug/kg	8.00	ND	68.4	40-115	14.3	25
Benzo(a)anthracene	2.69	2.0	ug/kg	8.00	ND	33.6	45-130	76.3	20
Benzo(a)pyrene	ND	2.0	ug/kg	8.00	ND	11.4	50-115	141	20
Benzo(b)fluoranthene	ND	5.0	ug/kg	16.0	ND	19.2	40-130	94.6	25
Benzo(g,h,i)perylene	ND	5.0	ug/kg	16.0	ND	3.82	45-115	159	20
Benzo(k)fluoranthene	ND	2.0	ug/kg	8.00	ND	15.0	40-125	97.7	25
Chrysene	ND	5.0	ug/kg	8.00	ND	31.4	45-125	78.3	30
Dibeno(a,h)anthracene	ND	5.0	ug/kg	16.0	ND	2.54	25-130	105	30
Fluoranthene	12.1	5.0	ug/kg	16.0	ND	73.5	50-135	47.8	25
Fluorene	14.2	5.0	ug/kg	16.0	ND	83.1	35-120	2.14	20
Indeno(1,2,3-cd)pyrene	ND	5.0	ug/kg	8.00	ND	3.62	40-120	164	20

Del Mar Analytical, Colton

Clifton J. Kiser  
Project Manager

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CKC0083 &lt;Page 6 of 8&gt;

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BOE-C6-0232262



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Santa Ana, CA 92705  
Attention: Diane Suzuki

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228  
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046  
7277 Hayvenhurst, Suite B-12, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843  
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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

Client Project ID: E1C090309

Report Number: CKC0083

Sampled:03/09/01

Received:03/12/01

### METHOD BLANK/QC DATA

### POLYNUCLEAR AROMATIC HYDROCARBONS (EPA 8310)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Data Limit Qualifiers
<b>Batch: C1C1306 Extracted: 03/13/01</b>									
<b>Matrix Spike Dup Analyzed: 03/13/01 (C1C1306-MSD1)</b>					<b>Source: CKC0076-03</b>				
Naphthalene	71.9	20	ug/kg	80.0	ND	83.4	30-115	1.24	25
Phenanthrene	8.44	5.0	ug/kg	8.00	ND	105	30-160	41.8	30
Pyrene	6.46	5.0	ug/kg	8.00	ND	80.8	20-165	71.2	20
Surrogate: 2-Methylnaphthalene	4.82		ug/kg	8.00		60.3	35-115		MX

**Del Mar Analytical, Colton**  
Clifton J. Kiser  
Project Manager

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**BOE-C6-0232263**



# Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228  
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046  
7277 Hayvenhurst, Suite B-12, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843  
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-9596 FAX (858) 505-9689  
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

STL Los Angeles  
1721 S. Grand Avenue  
Santa Ana, CA 92705  
Attention: Diane Suzuki

Client Project ID: E1C090309

Report Number: CKC0083

Sampled:03/09/01  
Received:03/12/01

## DATA QUALIFIERS AND DEFINITIONS

- MX** The MS and/or MSD were outside of the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- ZZZZ4** The sample required a dilution due to high analyte concentration. Because of this dilution, the surrogate spike concentration was reduced to a level where the recovery calculation does not provide useful information.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- NR** Not reported.
- RPD** Relative Percent Difference

**Del Mar Analytical, Colton**  
Clifton J. Kiser  
Project Manager

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**BOE-C6-0232264**



Committed To Your Success

# SEVERN TRENT LABORATORIES

No. 201382

## CHAIN OF CUSTODY RECORD

CUSTOMER INFORMATION		PROJECT INFORMATION		BILLING INFORMATION		NUMBER OF CONTAINERS	ANALYSIS/REQUEST METHOD	DRAFT	LAB JOB NO.				
COMPANY:	Kennedy Banks	SEND REPORT TO:	STL Los Angeles	BILL TO:	974 LOS ANGELES					ADDRESS:	1721 S. Grand Ave	PHONE:	(714) 258-8610
SAMPLE NO	SAMPLE DESCRIPTION	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER	PRESERV.					REMARKS/PRECAUTIONS		
Source-H-1-030901	366	1000	Soil	Soil									
Source-E-2-030901	366	1010	Soil	Soil									
Source-B-3-030901	366	1015	Soil	Soil									
Source-Z-1-030901	366	1115	Soil	Soil									
Source-E-2-030901	366	1120	Soil	Soil									
SAMPLER: SPLIT SAMPLE												SHIPMENT METHOD:	
REQUIRED TURNAROUND*		<input type="checkbox"/> SAME DAY	<input type="checkbox"/> 24 HOURS	<input type="checkbox"/> 48 HOURS	<input type="checkbox"/> 72 HOURS	<input type="checkbox"/> 5 DAYS	<input type="checkbox"/> 10 DAYS	<input type="checkbox"/> ROUTINE	<input type="checkbox"/> OTHER	AIRBILL NO.:			
FURNISHED BY		DATE	PRINTED NAME/COMPANY	DATE	PRINTED NAME/COMPANY	DATE	PRINTED NAME/COMPANY	DATE	PRINTED NAME/COMPANY	DATE			
SIGNATURE: <i>John W. Banks</i>		3/13/01	SIGNATURE: <i>John W. Banks</i>	3/13/01	SIGNATURE: <i>John W. Banks</i>	3/13/01	SIGNATURE: <i>John W. Banks</i>	3/13/01	SIGNATURE: <i>John W. Banks</i>	3/13/01			
PRINTED NAME/COMPANY: STL LA		TIME: 1:50	PRINTED NAME/COMPANY: STL LA	TIME: 1:50	PRINTED NAME/COMPANY: STL LA	TIME: 1:50	PRINTED NAME/COMPANY: STL LA	TIME: 1:50	PRINTED NAME/COMPANY: STL LA	TIME: 1:50			
RECEIVED BY		DATE	RECEIVED BY	DATE	RECEIVED BY	DATE	RECEIVED BY	DATE	RECEIVED BY	DATE			
SIGNATURE: <i>John W. Banks</i>		3/13/01	SIGNATURE: <i>John W. Banks</i>	3/13/01	SIGNATURE: <i>John W. Banks</i>	3/13/01	SIGNATURE: <i>John W. Banks</i>	3/13/01	SIGNATURE: <i>John W. Banks</i>	3/13/01			
PRINTED NAME/COMPANY: STL LA		TIME: 1:50	PRINTED NAME/COMPANY: STL LA	TIME: 1:50	PRINTED NAME/COMPANY: STL LA	TIME: 1:50	PRINTED NAME/COMPANY: STL LA	TIME: 1:50	PRINTED NAME/COMPANY: STL LA	TIME: 1:50			

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\* RUSH TURNAROUND MAY REQUIRE SURCHARGE

BOE-C6-0232265

## SEVERN TRENT LABORATORIES

1721 South Grand Avenue  
Santa Ana, CA 92705  
Phone: (714) 258-8610 / Fax: (714) 258-0921